

(f) Miscellaneous

Item No.		Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
33	A	Front Seat Belts (2) Piper PS50039-4-2A Cert. Basis - TSO C22f	X _____	1.8	84.0	151
35	A	Aft Seat Belts (2) Piper PS50039-4-3 Cert. Basis - TSO C22f	X _____	1.6	123.0	197
36	B	Left Front Seat Piper Dwg. 79337-21	_____ _____	15.5	84.0	1302
37	L	Right Front Seat Piper Dwg. 79337-22	X _____	15.5	84.0	1302
38		Rear Seat Piper Dwg. 35131	X _____	27.0	124.1	3351
39	A	Shoulder Harness (2) (Front Seats Only) Piper PS50039 (Pacific Scientific P/N 1107447-05)	X _____	1.4	119.5	167
40	A	Baggage Straps Piper Dwg. 66804 and 66805	X _____	1.3	142.8	186

**THIS PAGE INTENTIONALLY LEFT BLANK**

(g) Engine and Engine Accessories  
(Optional Equipment)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
45	Primer System Piper Dwg. 35327-0	<u>X</u>	1.2	50.0	60

**THIS PAGE INTENTIONALLY LEFT BLANK**



(h) Propeller and Propeller Accessories  
(Optional Equipment)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
-------------	------	-------------------	--------------------	------------------------	--------------------

**THIS PAGE INTENTIONALLY LEFT BLANK**

(i) Landing Gear and Brakes  
(Optional Equipment)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
63	Nose Wheel Fairing Piper Dwg. 35513	_____	3.8	29.8	113
65	Main Wheel Fairings Piper Dwg. 65237	_____	7.6	113.6	863
67	Nose Wheel Fairing Piper Dwg. 37896-2	_____	10.3	36.6	374
69	Main Wheel Fairings Piper Dwg. 37885-2, -3	_____	20.6	113.6	2340
71	Nose Wheel Fairing Piper Dwg. 37896-2	_____ X	3.5	36.3	127
73	Main Wheel Fairings Piper Dwg. 79893-2, -3	_____ X	17.0	113.6	1931

**THIS PAGE INTENTIONALLY LEFT BLANK**

(j) Electrical Equipment  
(Optional Equipment)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
79	Instrument Panel Lights Piper Dwg. 35544	<u>  X  </u>	0.3	62.8	19
81	Instrument Light (2), Grimes 15-0083-7	<u>  X  </u>	0.1	99.0	10
83	Cabin Light Piper Dwg. 95229	<u>  X  </u>	0.3	99.0	30
85	Landing Light, G.E. Model 4509	<u>  X  </u>	0.5	13.1	7
87	Navigation Lights (2) Grimes Model A1285 (Red and Green)	<u>      </u>	0.4	106.6	43
89	Navigation Light (Rear) (1) Grimes Model A2064 (White)	<u>  X  </u>	0.2	281.0	56
91	Rotating Beacon Whelen Eng. Co. P/N WRML-12 Piper Dwg. 63892 or 63518	<u>      </u>	1.5	263.4	395
93	Anti-Collision Lights (Fin only) Piper Dwg. 99033-2	<u>      </u>	3.1	210.3	652
94	Anti-Collision Lights (Wing tips only) Cert. Basis - STC SA800 EA	<u>      </u>	5.7	157.9	900
95	Anti-Collision Lights (Fin and Wing Tips) Piper Dwg. 99033-10	<u>  X  </u>	6.1	172.8	1054
97	Heated Pitot Head, Piper Dwg. 35493-2	<u>  X  </u>	0.4	100.0	40
99	Piper Pitch Trim Piper Dwg. 67496-3	<u>      </u>	4.3	155.3	668

**SECTION 6  
WEIGHT AND BALANCE**

**PIPER AIRCRAFT CORPORATION  
PA-28-161, CHEROKEE WARRIOR II**

(j) Electrical Equipment  
(Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
101 C	Battery 12V 35 A.H. Rebat R35 (Wt. 27.2 lbs.)	<u>          </u> X	*5.3	114.9	609
103	Auxiliary Power Receptacle, Piper Dwg. 35298	<u>          </u> X	2.7	178.5	482
105	External Power Cable, Piper Dwg. 62355-11	<u>          </u>	4.6	142.8	657
107	Lighter, #200462, 12 Volt Universal	<u>          </u> Σ	0.2	62.9	13

\*Weight and moment difference between standard and optional equipment.

(k) Instruments (Optional Equipment)						
Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)	
113	Vacuum System Installation					
	a. With Airborne Model 211cc Pump	_____	4.5	39.1	176	
	b. With Edo-Aire Model 1U128A Pump	_____ X	4.9	39.1	192	
115	Attitude Gyro, Piper Dwg. 99002-2, -3, -4 or -8 Cert. Basis - TSO C4c	_____ X	2.2	59.4	131	
117	Directional Gyro, Piper Dwg. 99003-2, -3, -4 or -7 Cert. Basis - TSO C5c	_____ X	2.6	59.7	155	
119 C	Tru-Speed Indicator Piper PS50049-41T Cert. Basis - TSO C2b	_____ X	(same as standard equipment)			
121 C	Encoding Altimeter Piper PS50008-6 or -7 Cert. Basis - TSO C10b, C88	_____	*0.9	60.3	54	
122	Altitude Digitizer (United Instruments P N 5125-P3) Cert. Basis - TSO C88	_____	1.0	51.5	52	
123	Vertical Speed Piper Dwg. 99010-2, -4 or -5 Cert. Basis - TSO C8b	_____ X	1.0	60.9	61	
125	Alternate Static Source Piper Dwg. 35493	_____ X	0.4	61.0	24	
127	Turn and Slip Indicator Piper PS50030-2 or -3 Cert. Basis - TSO C3b	_____ X	2.6	59.7	155	

\*Weight and moment difference between standard and optional equipment.

**SECTION 6  
WEIGHT AND BALANCE**

**PIPER AIRCRAFT CORPORATION  
PA-28-161, CHEROKEE WARRIOR II**

(k) Instruments  
(Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
129	Engine Hour Meter Piper Dwg. 69889-0	<u>  +  </u>	0.3	61.2	18
131	Clock	<u>  X  </u>	0.4	62.4	25
133	Air Temperature Gauge Piper Dwg. 99479-0 or -2	<u>  X  </u>	0.2	72.6	15



(I) Autopilots  
 (Optional Equipment)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
141	AutoFlite II Piper Dwg. 99447 Cert. Basis - STC SA3066SW-D	_____	5.6	91.8	514
143	AutoControl IIIB a. Omni Coupler 1C-388 Piper Dwg. 79221 Cert. Basis - STC SA3065SW-D	_____ _____	9.6 1.0	77.6 59.3	745 59
145	AutoPilot - Century 21 Piper Dwg. 39726 Cert. Basis - STC SA3352SW	_____	12.0	69.0	828

**SECTION 6  
WEIGHT AND BALANCE**

**PIPER AIRCRAFT CORPORATION  
PA-28-161, CHEROKEE WARRIOR II**

(m) Radio Equipment  
(Optional Equipment)

Item No.	Item	Mark If Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
151	Bendix AS-2015A-7 or -9 Audio Panel	_____	1.0	66.4	66
152	Bendix CN2013-1 Com/Nav Cert. Basis - TSO C34c, C35d, C36c, C37b, C38b, C40a	_____	7.5	61.4	461
153	Bendix CN2013-2 Com/Nav w/G.S. Receiver Cert. Basis - TSO C34c, C35d, C36c, C37b, C38b, C40a	_____	8.2	61.4	504
154	Bendix CN 2013-4 Com Nav w/G.S. Receiver and M.B. Receiver	_____	8.5	61.4	522
155	Bendix ADF 2070 Cert. Basis - TSO C41c, C2a	_____	6.0*	105.0	630
156	Bendix TR2060 Transponder Cert. Basis - TSO C74c	_____	2.8*	63.6	178
157	Bendix CN2011 Dual Com/Nav Cert. Basis - TSO C34c, C35d C36c, C37b, C40a	_____	16.8	66.8	1122
158	Bendix IN2014B Indicator a. Single b. Dual Cert. Basis - TSO C34c, C36c, C40a, C66c	_____ _____	1.9 3.8	63.4 63.4	121 241
159	Bendix DME 2030 Cert. Basis - TSO C66a	_____	10.3*	185.0	1906

\*Weight includes antenna and cable

(m) Radio Equipment  
(Optional Equipment)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
161	Collins VHF-250 or VHF-251 Comm Transceiver				
	a. Single	_____	4.0	56.9	228
	b. Dual	_____	8.1	56.9	461
	Cert. Basis - TSO C37b, C38b				
163	Collins VIR-350 or VIR-351 Nav Receiver				
	a. Single	_____	3.9	57.4	224
	b. Dual	_____	7.9	57.4	453
	Cert. Basis - TSO C40a, C36c				
165	Collins IND-350 ( ) VOR/LOC Indicator				
	a. Single	_____	1.0	60.2	60
	b. Dual	_____	2.0	60.2	120
	Cert. Basis - TSO C40a, C36c				
167	Collins IND-351 ( ) VOR/LOC/GS Indicator				
	Cert. Basis - TSO C40a, C36c	_____	1.3	60.2	78
169	Collins GLS-350 Glide Slope Receiver				
	Cert. Basis - TSO C34c	_____	2.0	183.4	367
170	Collins DCE 400 Distance Computing Equipment				
	Cert. Basis - TSO C40a	_____	2.1	58.9	124
171	Collins RCR-650 ADF Receiver and Antenna and IND-650 Indicator				
	Cert. Basis - TSO C41c	_____	6.6	104.8	692
172	Collins RCR-650A ADF Receiver and Antenna and IND-650A Indicator				
	Cert. Basis - TSO C41c	_____	7.3	100.3	733

SECTION 6  
WEIGHT AND BALANCE

PIPER AIRCRAFT CORPORATION  
PA-28-161, CHEROKEE WARRIOR II

(m) Radio Equipment  
(Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
173	Collins AMR-350 Audio/Marker Panel Cert. Basis - TSO C35d, C50b	_____	*3.3	110.0	363
174	Collins DME-451 W/Ind. 451/450 Cert. Basis - C66a	_____	8.0	174.9	1399
175	Collins TDR-950 Transponder Cert. Basis - TSO C74c	_____	**2.8	62.9	176

\*Weight includes antenna and cable.

\*\*Weight includes antenna.

(m) Radio Equipment  
(Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
178	King KX 175 ( ) VHF				
	a. Transceiver	_____	9.4	56.6	532
	b. King KN 72 VOR/LOC Converter	_____	1.3	183.6	239
	c. King KN 73 Glide Slope Receiver	_____	3.2	184.3	590
	d. KN 75 Glide Slope Receiver	_____	1.6	184.3	295
	e. King KN 77 VOR/LOC Converter	_____	3.6	183.6	661
	f. King KI-204 VOR/ILS Indicator	_____	1.7	60.5	103
	g. King KNI-520 VOR/ILS Indicator	_____	1.7	60.5	103
	Cert. Basis - TSO C36c, C37b, C38b, C40a				
179	King KX 175 ( ) VHF				
	a. Transceiver (2nd)	_____	8.6	56.6	487
	b. King KN 72 VOR/LOC Converter	_____	1.3	183.6	239
	c. King KN 77 VOR/LOC Converter	_____	4.2	183.6	771
	d. King KI-203 VOR/ILS Indicator	_____	1.6	60.5	97
	e. King KNI 520 VOR/ILS Indicator	_____	1.7	60.5	103
	Cert. Basis - TSO C36c, C37b, C38b, C40a				
180	King KY 196E Transceiver with RB 125 Power Booster				
	a. Single	_____	5.7	77.0	439
	b. Dual	_____	11.4	77.0	878
	Cert. Basis — TSO C37b, C38b				
181	King KY 197 Transceiver				
	a. Single	_____	4.2	58.7	246
	b. Dual	_____	8.4	58.7	492
	Cert. Basis - TSO C37B, C38B				
182	King KI 201 ( ) VOR/LOC Ind.				
	a. Single	_____	2.5	59.6	149
	b. Dual	_____	5.0	59.9	300
183	King KI 202 VOR/LOC Indicator				
	Cert. Basis - TSO C40a, C36c	_____	1.3	60.9	79

**SECTION 6  
WEIGHT AND BALANCE**

**PIPER AIRCRAFT CORPORATION  
PA-28-161, CHEROKEE WARRIOR II**

(m) Radio Equipment  
(Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
184	King KI 206 VOR/LOC Indicator Cert. Basis - TSO C40a, C36c	_____	1.3	60.9	79
185	King KI 208 VOR LOC Indicator a. Single b. Dual Cert. Basis - TSO C34c, C36c, C40a	_____ _____ _____	1.0 2.0	59.6 59.9	60 120
186	King KI 209 VOR LOC GS Ind. Cert. Basis - TSO C34c C36c, c40a	_____	1.2	59.9	72
187	King KI 213 VOR LOC GS Ind.	_____	2.5	60.4	151
188	King KI 214 ( ) VOR LOC GS Ind.	_____	3.3	59.9	198
189	King KN 74 R-Nav	_____	4.7	56.6	266
191	King KN 61 DME	_____	12.5	179.0	2237
192	King KN 62A DME	_____	3.3	58.3	193
193	King KN 65A DME Cert. Basis - TSO C66a	_____	13.0	174.9	2274
194	King KRA-10 Radio Altimeter	_____	4.3	162.6	699
195	King KR 85 Digital ADF a. Audio Amplifier Cert. Basis - TSO C41b	_____ _____ _____	8.6 0.8	85.2 51.0	733 41
196	King KR 85 ADF with KA 42B Loop and Sense Antenna a. Audio Amplifier Cert. Basis - TSO C41b	_____ _____ _____	9.5 0.8	85.2 51.0	809 41
197	King KR 86 ADF a. First b. Second c. Audio Amplifier	_____ _____ _____	6.7 9.7 0.8	91.6 107.0 51.0	614 1038 41

(m) Radio Equipment  
(Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
198	King KR 86 ADF with KA 42B Loop and Sense Antenna				
	a. First	_____	7.6	91.6	696
	b. Second	_____	10.6	107.0	1134
	c. Audio Amplifier	_____	0.8	51.0	41
199	King KR 87 ADF Receiver and Indicator	_____	4.0	59.0	236
	a. KA 44 Antenna	_____	2.8	147.4	413
	b. KA 44B Antenna	_____	3.6	150.6	542
	c. Audio Amplifier	_____	0.8	51.0	41
	Cert. Basis - TSO C41c				
200	King KMA 20 ( ) Audio Panel	_____	*3.7	70.8	262
	Cert. Basis - TCO C35c, C50b				
201	King KMA-24 Audio Panel	_____	1.7	65.3	111
	Cert. Basis - TSO C35d, C50b				
203	King KT 76 ( )/78 ( ) Transponder	_____	*3.1	58.1	180
	Cert. Basis - TSO C74b				
204	Narco Comm 10A VHF Transceiver	_____	3.9	57.4	224
205	Narco Comm 11A VHF Transceiver				
	a. Single	_____	3.6	57.4	207
	b. Dual	_____	7.1	57.4	408
207	Narco Comm 11B VHF Transceiver				
	a. Single	_____	3.9	57.4	224
	b. Dual	_____	7.8	57.4	448

\*Weight includes antenna and cable.

**SECTION 6  
WEIGHT AND BALANCE**

**PIPER AIRCRAFT CORPORATION  
PA-28-161, CHEROKEE WARRIOR II**

(m) Radio Equipment  
(Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
209	Narco Comm 111 VHF Transceiver				
	a. Single	_____	3.0	57.4	172
	b. Dual	_____	6.0	57.4	344
	Cert. Basis - TSO C37b, C38b				
211	Narco Comm IIIB VHF Transceiver				
	a. Single	_____	3.9	57.4	224
	b. Dual	_____	7.8	57.4	448
	Cert. Basis - TSO C37b, C38b				
213	Narco Comm 120 VHF Transceiver				
	a. Single	_____	4.8	56.9	273
	b. Dual	_____	8.6	57.4	494
	Cert. Basis - TSO C37b, C38b				
215	Narco Nav 10 VHF Receiver	_____	1.9	58.6	111
217	Narco Nav 11 VHF Receiver				
	a. Single	_____	2.8	58.6	164
	b. Dual	_____	5.6	58.6	328
219	Narco Nav 12 VHF Receiver	_____	3.4	58.6	199
221	Narco Nav 14 VHF Receiver	_____	2.5	57.4	144
223	Narco Nav 111 Cert. Basis - TSO C36c, C40a, C66a	_____	2.5	58.6	147
225	Narco Nav 112 Receiver Cert. Basis - TSO C36c, C40a, C66c, C34c	_____	3.3	58.6	193
227	Narco Nav 114 VHF Receiver Cert. Basis - TSO C38b, C40a, C36c, C34c, C66a	_____	2.5	57.4	144

\*Weight includes marker antenna and cable.



(m) Radio Equipment  
(Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
229	Narco Nav 121 VHF Receiver				
	a. Single	_____	3.1	58.4	181
	b. Dual	_____	6.2	58.4	362
	Cert. Basis - TSO C36c, C40c, C66a				
231	Narco Nav 122 VHF Receiver				
	a. Single	_____	*5.1	99.4	507
	b. Dual	_____	*8.6	82.9	713
	Cert. Basis - TSO C35d, C36c, C40c, C66a				
233	Narco Nav 122A VHF Receiver				
	a. Single	_____	* 5.2	98.5	512
	b. Dual	_____	* 8.8	82.2	723
	Cert. Basis - TSO C34c, C35d, C36c, C40c, C66a				
235	Narco Nav 124A VHF Receiver				
	a. Single	_____	* 6.2	92.3	572
	b. Dual	_____	*10.9	77.2	841
	Cert. Basis - TSO C35d, C36c, C40a, C66a				
237	Narco ID 124 VOR/LOC/GS Indicator				
	a. Single	_____	1.2	60.5	73
	b. Dual	_____	2.4	60.5	145
	Cert. Basis - TSO C34c, C35d, C36c, C40c				
239	Narco UGR-2A Glide Slope				
	a. Single	_____	4.2	154.0	647
	b. Dual	_____	8.4	220.0	1848
	Cert. Basis - TSO C34b				
241	Narco UGR-3 Glide Slope	_____	4.2	154.0	647
243	Narco MBT-12-R, Marker Beacon	_____	3.1	69.1	214
245	Narco CP-125 Audio Selector Panel	_____	2.2	60.2	132

\*Weight includes marker antenna and cable.

SECTION 6  
WEIGHT AND BALANCE

PIPER AIRCRAFT CORPORATION  
PA-28-161, CHEROKEE WARRIOR II

(m) Radio Equipment  
(Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
247	Narco CP135 Audio Selector Panel Cert. Basis - TSO C50b	_____	2.2	55.0	121
249	Narco CP135M Audio Selector Panel Cert. Basis - TSO C50b, C35d	_____	* 3.7	114.3	423
251	Narco DME-190	_____	** 5.9	61.0	360
253	Narco DME-190 TSO Cert. Basis - TSOC66a	_____	** 5.9	60.9	359
255	Narco DME-195 Receiver and Indicator Cert. Basis - TSO C66a	_____	**13.2	154.5	2039
257	Narco ADF-140 a. Single b. Dual Cert. Basis - TSOC41c	_____ _____	6.0 ***17.9	91.2 107.6	547 1926
259	Narco ADF-141 a. Single b. Dual Cert. Basis - TSO C41c	_____ _____	6.0 ***17.9	91.2 107.6	547 1926
261	Narco AT50A Transponder Cert. Basis - TSOC74b a. Narco AR-500 Altitude Encoder Cert. Basis - TSO C88	_____ _____	** 3.0 1.0	57.3 51.5	172 52
263	Narco AT150 Transponder Cert. Basis - TSOC74c a. Narco AR-500 Altitude Encoder Cert. Basis - TSOC88	_____ _____	** 3.0 1.0	57.3 51.5	172 52

\*Weight includes marker antenna and cable.  
\*\*Weight includes antenna and cable.  
\*\*\*Weight includes dual antenna and cable.

(m) Radio Equipment  
(Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb.-In.)
273	Antenna and Cable				
	a. Nav Receiving VRP-37 or AV12-PPR	_____	1.6	171.3	274
	b. #1 VHF Comm VTP-17	_____	0.7	125.7	88
	c. #2 VHF Comm VTP-17	_____	0.8	147.5	118
	d. Glide Slope (Single) GS401 or CI 104	_____	0.9	120.0	108
	e. Glide Slope (Dual) GS401 or CI 104	_____	2.8	154.0	431
	f. Single ADF Sense 99841 Piper Dwg. 99461	_____	0.4	150.0	60
275	Anti Static Antenna and Cable				
	a. #1 VHF Comm PS50040-18	_____	1.4	144.3	202
	b. #2 VHF Comm PS50040-18	_____	1.5	170.7	256
	c. Single ADF Sense 79160	_____	0.5	147.5	74
276	Marker Beacon Antenna Piper PS50040-15 King KA-23 or Narco VMA-15 or Comant CI-102				
			Included as part of marker beacon installation		
277	Marker Beacon Antenna Comant C1 102 Piper Dwg. 39737-4	_____	*1.2	175.0	210
278	Emergency Locator Transmitter (C.C.C. Model CIR-11-2)	_____	1.7	236.2	402
	a. Antenna and Coax	_____	0.2	224.4	45
	b. Shelf and Access Hole Cert. Basis - TSO C91	_____	0.5	235.4	118
279	Emergency Locator Transmitter (Narco Model ELT-10)	_____	3.5	236.2	827
	a. Antenna and Coax	_____	0.3	224.4	67
	b. Shelf and Access Hole Cert. Basis - TSO C91	_____	0.5	235.4	118
280	Microphone				
	a. Piper Dwg. 68856-10	_____	0.3	69.9	21
	b. Piper Dwg. 68856-11	_____	0.6	69.9	42
	c. Piper Dwg. 68856-12	_____	0.3	69.9	21

\*Weight includes antenna coax wire to Marker Beacon Receiver.

**SECTION 6  
WEIGHT AND BALANCE**

**PIPER AIRCRAFT CORPORATION  
PA-28-161, CHEROKEE WARRIOR II**

(m) Radio Equipment  
(Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
281	Boom Microphone, Headset Piper Dwg. 37921-2	_____	0.3	80.5	24
283	Cabin Speaker Piper Dwg. 99220	_____	1.1	99.0	109
285	Headset Piper Dwg. 68856-10	_____	0.5	60.0	30

287 SPA-400 Intercom <sup>SN</sup>

THIS PAGE INTENTIONALLY LEFT BLANK

THIS PAGE INTENTIONALLY LEFT BLANK

(n) Miscellaneous  
(Optional Equipment)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
321	Zinc Chromate Finish Piper Dwg. 79700	_____	5.0	158.0	790
323	Stainless Steel Control Cables Piper Dwg. 79700	_____	—	—	—
325	Air Conditioner Piper Dwg. 99575-4	_____	68.3	103.6	7076
327	Overhead Vent System				
	a. Piper Dwg. 76304-9	_____	6.4	159.6	1022
	b. Piper Dwg. 76304-15	_____ ✕	5.7	148.9	849
329	Overhead Vent System with Ground Ventilating Blower				
	a. Piper Dwg. 76304-10	_____	14.9	172.2	2566
	b. Piper Dwg. 76304-16	_____	14.2	168.5	2393
331	Rear Seat Vents Piper Dwg. 68556	_____ ✕	2.5	98.0	245
333	Assist Step Piper Dwg. 65384	_____ ✕	1.8	156.0	281
335	Super Cabin Sound Proofing Piper Dwg. 79030-2	_____ ✕	18.1	86.8	1571
337 C	Adjustable Front Seat (Left) Piper Dwg. 79591-0/79591-2	_____ ✕	*6.6	80.3	530
339	Adjustable Front Seat (Right) Piper Dwg. 79591-1/79591-3	_____	*6.6	79.6	525
341	Headrests (2) Front Piper Dwg. 79337-18	_____ ✕	2.2	94.5	208

\*Weight and moment difference between standard and optional equipment.

**SECTION 6  
WEIGHT AND BALANCE**

**PIPER AIRCRAFT CORPORATION  
PA-28-161, CHEROKEE WARRIOR II**

(n) Miscellaneous  
(Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
343	Inertia Safety Belts (Rear) (2) 0.8 lbs. each, Piper PS50039-4-14	_____	1.6	140.3	224
345	Sun Visors Piper Dwg. 66991-0	_____ ✕	1.5	85.0	128
347	Assist Strap Piper Dwg. 79455	_____ ✕	0.2	109.5	22
249	Curtain and Rod Installation Piper Dwg. 67955-2	_____	4.2	124.0	521
251	Luxurious Interior Piper Dwg. 67952-4	_____	*14.5	98.3	1425
253	Deluxe Carpeting Piper Dwg. 66801	_____ ✕	*2.6	97.8	254
255	Fire Extinguisher a. Piper Dwg. 76167-2, Scott 42211-00	_____	4.6	71.0	327
	b. Piper Dwg. 37872-2, Graviner HA 1014-01	_____	5.6	57.9	324
257	Tow Bar Piper Dwg. 99458	_____ ✕	1.3	156.0	203

\*Weight and moment difference between standard and optional equipment.



(n) Miscellaneous  
 (Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
361	Locking Gas Cap Piper Dwg. 39830-2	_____	*0.1	94.1	9

\*Weight and moment difference between standard and optional equipment.

TOTAL OPTIONAL EQUIPMENT

**THIS PAGE INTENTIONALLY LEFT BLANK**

## Weight and Balance for PA28-161 N81916

The maximum gross weight of a Piper Warrior is 2325 lbs. This airplane's empty weight is 1482.98lbs, and the empty weight center of gravity is 87.02inches. The useful load is 842.02lbs. The forward center of gravity limit is 83 inches, and the aft center of gravity limit is 93 inches. For more complete information see the POH in the airplane.

### Weight and Balance Determination for Flight

1. Add the weight of all items to be loaded to the basic empty weight.
2. Calculate the moment of all items to be carried in the airplane.
3. Add the moments of all items to be loaded to the basic empty weight moment.
4. Divide the total moment by the total weight to determine the C.G. Location.

	Weight (lbs)	Arm aft Datum (inches)	Moment (inches-lbs)
Basic Empty Weight	1482.98lbs	87.0in	129054.4in-lbs
Pilot & Front Passenger		80.5 in	
Passengers (Rear Seats)		118.1 in	
Fuel (48 Gallon Maximum)		95.0 in	
Baggage (200 lbs Maximum)		142.8 in	
Total Loaded Airplane			

$$(\text{Total Moment in-lbs}) / (\text{Total Weight lbs}) = \underline{\hspace{2cm}} \text{C.G. inches}$$

**It is the responsibility of the pilot in command to insure that the airplane is loaded properly.**

**This information can be found in the Piper Aircraft Corporation, PA-28-161, Cherokee Warrior II POH, Section 6, Weight and Balance.**