

TABLE OF CONTENTS

SECTION 6

WEIGHT AND BALANCE

Paragraph No.		Page No.
		6-1
		6-3
6.1	General	6-6
6.3	Airplane Weighing Procedure	6-11
6.5	Weight and Balance Data and Record	6-17
6.7	Weight and Balance Determination for Flight	6-17
6.9	Equipment List	6-19
(a)	Propeller and Propeller Accessories	6-21
(b)	Engine and Engine Accessories	6-23
(c)	Landing Gear and Brakes	6-25
(d)	Electrical Equipment	6-27
(e)	Instruments	6-29
(f)	Miscellaneous	6-31
(g)	Engine and Engine Accessories (Optional Equipment)	6-33
(h)	Propeller and Propeller Accessories (Optional Equipment)	6-35
(i)	Landing Gear and Brakes (Optional Equipment)	6-37
(j)	Electrical Equipment (Optional Equipment)	6-39
(k)	Instruments (Optional Equipment)	6-41
(l)	Autopilots (Optional Equipment)	6-53
(m)	Radio Equipment (Optional Equipment)	
(n)	Miscellaneous (Optional Equipment)	

SECTION 6

WEIGHT AND BALANCE

6.1 GENERAL

In order to achieve the performance and flying characteristics which are designed into the airplane, it must be flown with the weight and center of gravity (C.G.) position within the approved operating range (envelope). Although the airplane offers flexibility in loading, it cannot be flown with the maximum number of adult passengers, full fuel tanks and maximum baggage. With the flexibility comes responsibility. The pilot must ensure that the airplane is loaded within the loading envelope before he makes a takeoff.

Misloading carries consequences for any aircraft. An overloaded airplane will not take off, climb or cruise as well as a properly loaded one. The heavier the airplane is loaded, the less climb performance it will have.

Center of gravity is a determining factor in flight characteristics. If the C.G. is too far forward in any airplane, it may be difficult to rotate for takeoff or landing. If the C.G. is too far aft, the airplane may rotate prematurely on takeoff or tend to pitch up during climb. Longitudinal stability will be reduced. This can lead to inadvertent stalls and even spins; and spin recovery becomes more difficult as the center of gravity moves aft of the approved limit.

A properly loaded airplane, however, will perform as intended. Before the airplane is licensed, a basic empty weight and C.G. location is computed (basic empty weight consists of the standard empty weight of the airplane plus the optional equipment). Using the basic empty weight and C.G. location, the pilot can easily determine the weight and C.G. position for the loaded airplane by computing the total weight and moment and then determining whether they are within the approved envelope.

The basic empty weight and C.G. location are recorded in the Weight and Balance Data Form (Figure 6-5) and the Weight and Balance Record (Figure 6-7). The current values should always be used. Whenever new equipment is added or any modification work is done, the mechanic responsible for the work is required to compute a new basic empty weight and C.G. position and to write these in the Aircraft Log Book and the Weight and Balance Record. The owner should make sure that it is done.

A weight and balance calculation is necessary in determining how much fuel or baggage can be boarded so as to keep within allowable limits. Check calculations prior to adding fuel to insure against improper loading.

The following pages are forms used in weighing an airplane in production and in computing basic empty weight, C.G. position, and useful load. Note that the useful load includes usable fuel, baggage, cargo and passengers. Following this is the method for computing takeoff weight and C.G.

THIS PAGE INTENTIONALLY LEFT BLANK

6.3 AIRPLANE WEIGHING PROCEDURE

At the time of licensing, Piper Aircraft Corporation provides each airplane with the basic empty weight and center of gravity location. This data is supplied by Figure 6-5.

The removal or addition of equipment or airplane modifications can affect the basic empty weight and center of gravity. The following is a weighing procedure to determine this basic empty weight and center of gravity location:

(a) Preparation

- (1) Be certain that all items checked in the airplane equipment list are installed in the proper location in the airplane.
- (2) Remove excessive dirt, grease, moisture, foreign items such as rags and tools from the airplane before weighing.
- (3) Defuel airplane. Then open all fuel drains until all remaining fuel is drained. Operate engine on each tank until all undrainable fuel is used and engine stops. Then add the unusable fuel (5.0 gallons total, 2.5 gallons each wing).

CAUTION

Whenever the fuel system is completely drained and fuel is replenished it will be necessary to run the engine for a minimum of three minutes at 1000 RPM on each tank to insure that no air exists in the fuel supply lines.

- (4) Fill with oil to full capacity.
- (5) Place pilot and copilot seats in fourth (4th) notch, aft of forward position. Put flaps in the fully retracted position and all control surfaces in the neutral position. Tow bar should be in the proper location and all entrance and baggage doors closed.
- (6) Weigh the airplane inside a closed building to prevent errors in scale readings due to wind.

(b) Leveling

- (1) With airplane on scales, block main gear oleo pistons in the fully extended position.
- (2) Level airplane (refer to Figure 6-3) deflating nose wheel tire, to center bubble on level.

(c) Weighing - Airplane Basic Empty Weight

- (1) With the airplane level and brakes released, record the weight shown on each scale. Deduct the tare, if any, from each reading.

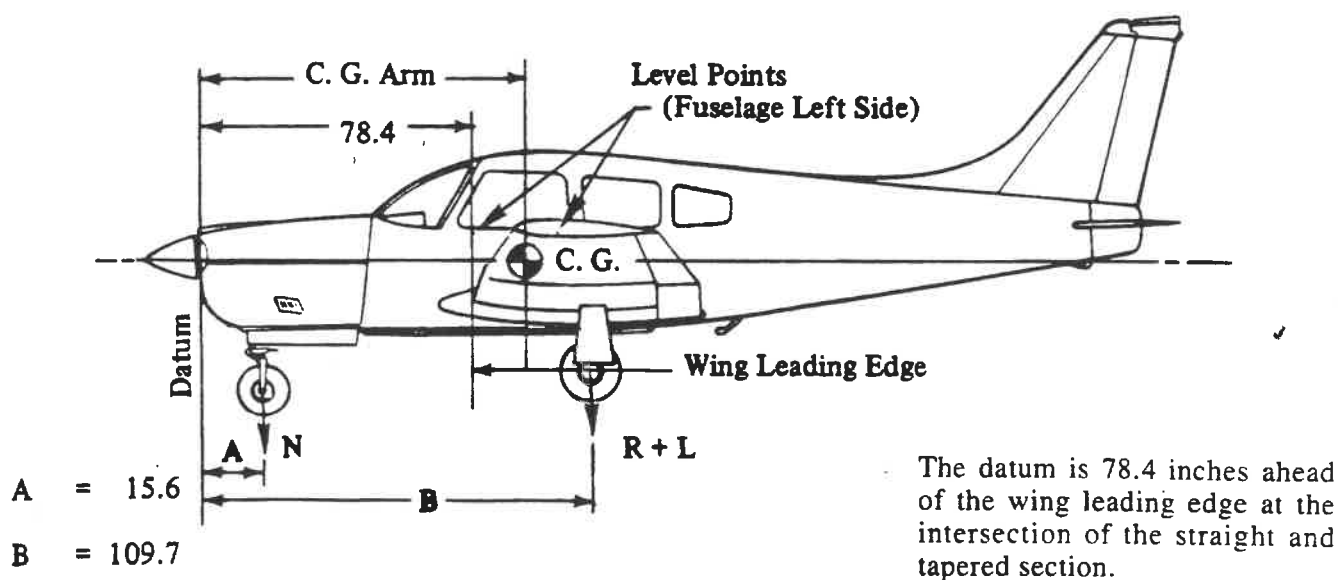
Scale Position and Symbol	Scale Reading	Tare	Net Weight
Nose Wheel (N)			
Right Main Wheel (R)			
Left Main Wheel (L)			
Basic Empty Weight, as Weighed (T)	— —	— —	

WEIGHING FORM

Figure 6-1

(d) Basic Empty Weight Center of Gravity

- (1) The following geometry applies to the PA-28R-201 airplane when it is level. Refer to Leveling paragraph 6.3 (b).



LEVELING DIAGRAM

Figure 6-3

- (2) The basic empty weight center of gravity (as weighed including optional equipment, full oil and unusable fuel) can be determined by the following formula:

$$\text{C.G. Arm} = \frac{N(A) + (R + L)(B)}{T} \quad \text{inches}$$

Where: $T = N + R + L$

6.5 WEIGHT AND BALANCE DATA AND RECORD

The Basic Empty Weight, Center of Gravity Location and Useful Load listed in Figure 6-5 are for the airplane as licensed at the factory. These figures apply only to the specific airplane serial number and registration number shown.

The basic empty weight of the airplane as licensed at the factory has been entered in the Weight and Balance Record (Figure 6-7). This form is provided to present the current status of the airplane basic empty weight and a complete history of previous modifications. Any change to the permanently installed equipment or modification which affects weight or moment must be entered in the Weight and Balance Record.

MODEL PA-28R-201 CHEROKEE ARROW III

Airplane Serial Number _____

Registration Number _____

Date _____

AIRPLANE BASIC EMPTY WEIGHT

Item		Weight (Lbs)	x	C. G. Arm (Inches Aft of Datum)	=	Moment (In-Lbs)
Standard Empty Weight*	Actual Computed					
Optional Equipment						
Basic Empty Weight						

*The standard empty weight includes full oil capacity and 5.0 gallons of unusable fuel.

AIRPLANE USEFUL LOAD - NORMAL CATEGORY OPERATION

(Gross Weight) - (Basic Empty Weight) = Useful Load

(2750 lbs) - (lbs) = lbs.

THIS BASIC EMPTY WEIGHT, C.G. AND USEFUL LOAD ARE FOR THE AIRPLANE AS LICENSED AT THE FACTORY. REFER TO APPROPRIATE AIRCRAFT RECORD WHEN ALTERATIONS HAVE BEEN MADE.

WEIGHT AND BALANCE DATA FORM

Figure 6-5

THIS PAGE INTENTIONALLY LEFT BLANK

Figure 6-7

SECTION 6

WEIGHT AND BALANCE

**PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III**

[illegible]**WEIGHT AND BALANCE RECORD (cont)**

Figure 6-7 (cont)

6.7 WEIGHT AND BALANCE DETERMINATION FOR FLIGHT

- Add the weight of all items to be loaded to the basic empty weight.
- Use the Loading Graph (Figure 6-13) to determine the moment of all items to be carried in the airplane.
- Add the moment of all items to be loaded to the basic empty weight moment.
- Divide the total moment by the total weight to determine the C.G. location.
- By using the figures of item (a) and item (d) (above), locate a point on the C.G. range and weight graph (Figure 6-15). If the point falls within the C.G. envelope, the loading meets the weight and balance requirements.

	Weight (Lbs)	Arm Aft Datum (Inches)	Moment (In-Lbs)
Basic Empty Weight			
Pilot and Front Passenger	340.0	80.5	27370
Passengers (Rear Seats)	340.0	118.1	40154
Fuel (72 Gallon Maximum)		95.0	
Baggage		142.8	
Moment due to Retraction of Landing Gear			819
Total Loaded Airplane			

The center of gravity (C.G.) of this sample loading problem is at _____ inches aft of the datum line. Locate this point () on the C.G. range and weight graph. Since this point falls within the weight C.G. envelope, this loading meets the weight and balance requirements.

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

SAMPLE LOADING PROBLEM (NORMAL CATEGORY)

Figure 6-9

SECTION 6
WEIGHT AND BALANCE

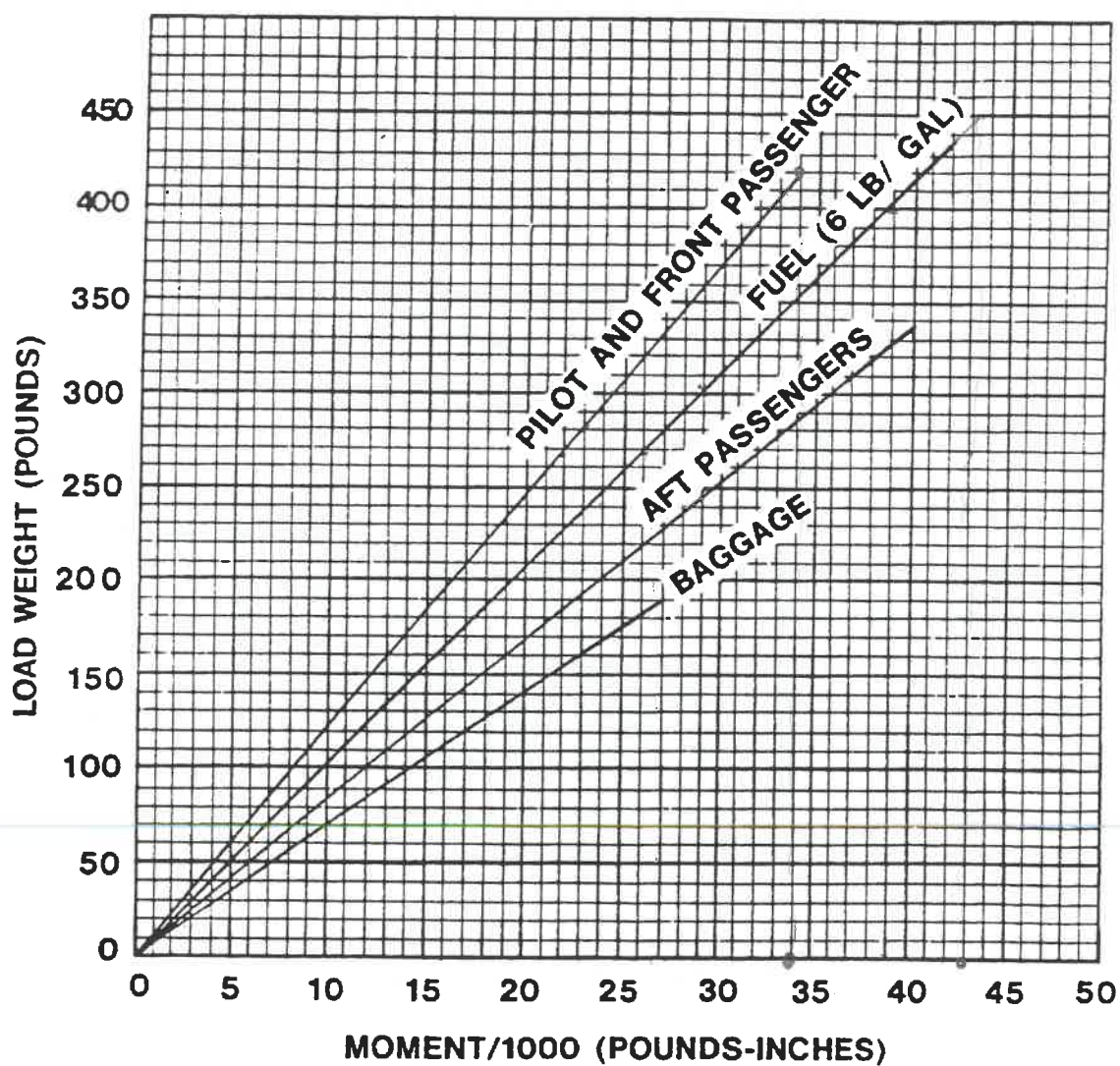
PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III

	Weight (Lbs)	Arm Aft Datum (Inches)	Moment (In-Lbs)
Basic Empty Weight	1803	86.1	155237
Pilot and Front Passenger	420	80.5	33810
Passengers (Rear Seats)	0	118.1	
Fuel (72 Gallon Maximum)	350	95.0	33250
Baggage	25	142.8	3570
Moment due to Retraction of Landing Gear			819
Total Loaded Airplane	2598		226686

Totals must be within approved weight and C.G. limits. It is the responsibility of the airplane owner and the pilot to insure that the airplane is loaded properly. The Basic Empty Weight C.G. is noted on the Weight and Balance Data Form (Figure 6-5). If the airplane has been altered, refer to the Weight and Balance Record for this information.

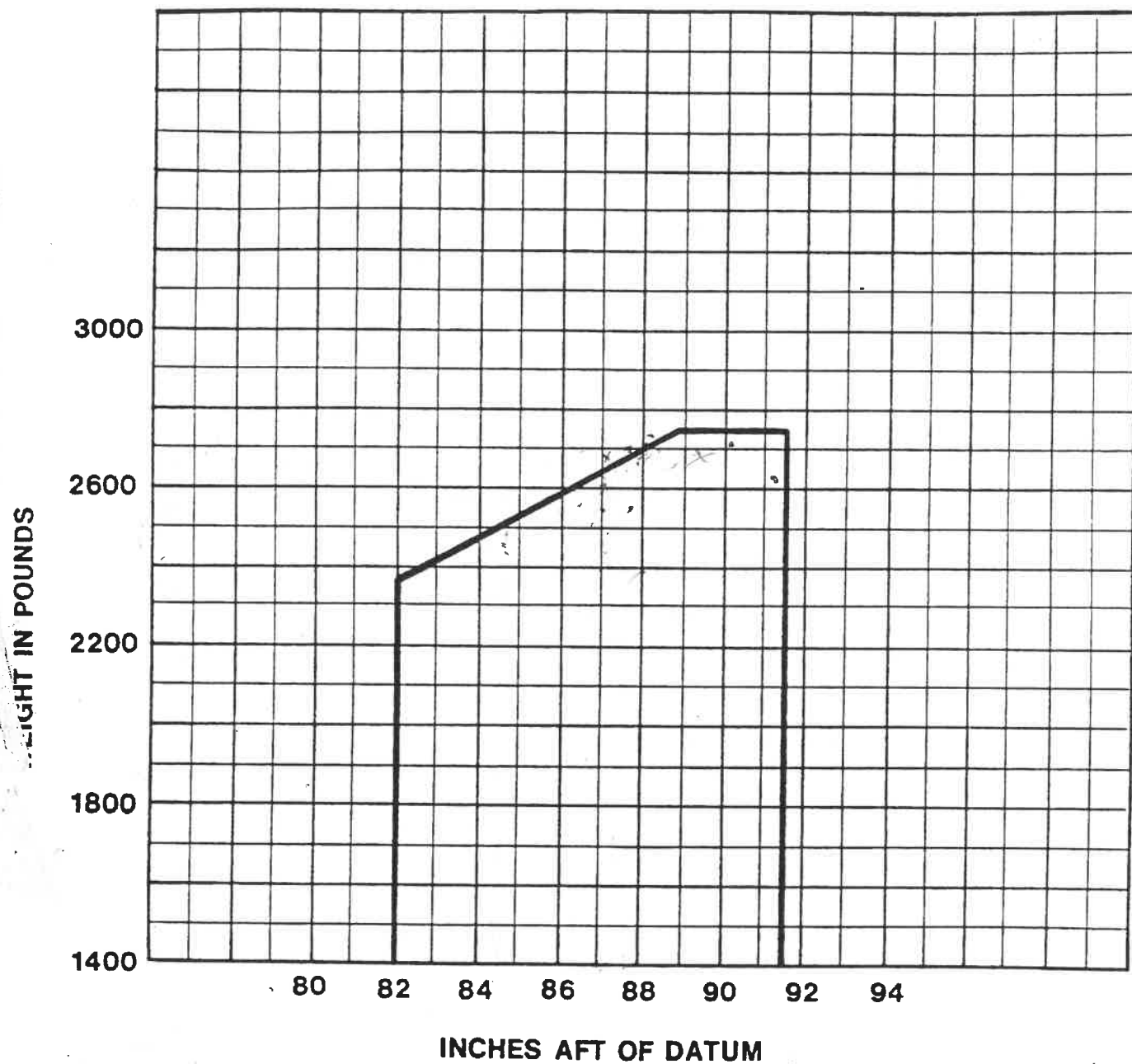
WEIGHT AND BALANCE LOADING FORM

Figure 6-11



LOADING GRAPH

Figure 6-13



Moment due to retracting landing gear = +819 in. lbs.

C. G. RANGE AND WEIGHT

Figure 6-15

THIS PAGE INTENTIONALLY LEFT BLANK

THIS PAGE INTENTIONALLY LEFT BLANK

Weight & Balance Report

New Century Air Service	Make	Piper
#2 Aero Plaza	Model	PA28R-201
New Century, KS 66031	S/N	28R-7737164
913-768-9400	Reg. #	N328NC
	W/O	

EMPTY - WEIGHT & BALANCE

Location	Scale Pounds	Tare	Net Weight	Arm Inches	Moments Inch/Pounds
Left	682		682	109.7	74815.4
Right	683		683	109.7	74925.1
Nose	436		436	15.6	6801.6
Total As Weighed			1801		156542.1
Adjustments					
					0
					0
					0
					0
Total Corrected Empty Weight			1801		156542.1

A. Empty Weight	1801 Pounds
B. Empty CG	86.9 Inches
C. Empty Weight CG Moment	156542.1 Inch/Pounds
D. Max Gross Weight	2750 Pounds
E. Useful Load	949 Pounds

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

Scale Calibration Date 9/30/2018

10/19/2018 Randall Lee Surls



AP3275908IA

Authorized Signature

Notes:

SUPERSEDES WIGHT & BALANCE DATED 6/18/2018

Date: 18/JUNE/2018

**WEIGHT AND BALANCE REVISION SHEET
AND SUPPLEMENTAL EQUIPMENT LIST**

REG#: N844AV

MAKE: PIPER

Model: PA28R-201

S/N: 28R-7737164

SUPERSEDED WEIGHT AND BALANCE DATED August 14, 2013

ITEM NAME	WEIGHT	ARM	MOMENT
Aircraft Weighed in the following condition:	1803.0	86.1	155237
KMA 24	(1.7)	60.8	(103)
KX 155	(5.5)	56.5	(311)
KI 209	(1.0)	59.6	(60)
KI 203	(1.0)	59.6	(60)
KT 76A	(2.3)	58.1	(133)
PM 3000	(0.1)	65.3	(7)
Horizon	(2.2)	59.4	(131)
DG	(2.6)	59.7	(155)
Vacuum System	(4.5)	37.1	(167)
T&B	(2.6)	59.7	(155)
Misc	(6.0)	45.0	(270)
PMA 6000M	1.5	60.8	91
IFD 540	6.8	56.5	384
KI 208	1.0	59.6	60
GTX 345	3.1	58.5	181
G5 Attitude	1.8	62.0	62
G5 HSI	1.0	62.0	62
GMU 11 (Left Wing)	0.9	105.0	32
GAD 29B	0.7	51.0	36
AP Controller	1.9	59.0	112
Transducer	0.2	47.0	9
RFGC	2.3	185.0	426
PFGC	3.0	185.0	555
Roll Servo	3.1	118.0	366
Pitch Servo	3.2	236.0	755
Flap Position	0.2	116.0	23
T&B	1.8	59.0	106
Misc	6.5	125.0	813
Stratus Power	0.2	64.0	13
TOTAL NEW WEIGHT & BALANCE	1811.3	87.1	157771

LOAD AIRCRAFT IN ACCORDNCE WITH AIRPLANE FLIGHT MANUAL

MAXIMUM GROSS T.O. WEIGHT: 2750

NEW A/C EMPTY WEIGHT: 1811.3

NEW USEFUL LOAD: 938.7

NEW EMPTY WEIGHT CENTER OF GRAVITY 87.1 IN AFT OF DATUM

Alan Williams

Alan Williams
RS# DD6R283X

BILMAR
AVIONICS
INCORPORATED
Avionics & Aircraft Electrical Specialists

(407) 935-9466 Fx (407) 931-4340

AIRCRAFT WEIGHT AND BALANCE REPORT

DATE	AIRCRAFT TYPE	SERIAL #	REG. #
08-14-13	PA28R-201	28R-7737164	N844AV

WEIGHED BY	LOCATION
Bilmar Avionics, Inc.	Hgr.4005 Kissimmee Airport

Tach: 7182.2 Hobbs: 01954.2

AIRCRAFT WEIGHED ON WHEELS WITH FULL FUEL & OIL

POSITION	WEIGHT		MOMENT
LEFT MAIN GEAR	840.0	Scale#20536	
RIGHT MAIN GEAR	850.0	#20752	
NOSE GEAR	515.0	#20762	
SUB TOTAL	2205.0	87.72	193427.0
LESS USABLE FUEL	-402.0	95.00	- 38190.0

NEW EMPTY WEIGHT	NEW EWCG	MOMENT
1803.0	86.10	155237.0

Billy D. Webb

SIGNATURE

CERTIFICATE#

DATE

A256962739

08-14-13

Supercab 185 gne 18
How Webb

Avionics & Aircraft Electrical Specialists

(407) 935-9466 Fx (407) 931-4340

SUPPLEMENTAL AIRCRAFT WEIGHT/BALANCE AND EQUIPMENT REPORT

DATE	AIRCRAFT TYPE	SERIAL #	REG. #
08-14-13	PA28R-201	28R-7737164	N844AV

Tach:7182.2 Hobbs: 01954.2

[illegible]

NEW EMPTY WEIGHT	NEW EWCG	MOMENT	USEFUL LOAD
1803.0	86.10	155237.0	947.0

Billy D. Webb

Billy D. Webb

A256962739

08-14-13

Aircraft Weight and Balance Revision Form

Date: 11-2-2011

Aircraft	
Tail No:	N844AV
Make:	PIPER
Model:	PA28R-201
Serial:	28R-7737164
Time:	1,339.1
TCD No:	

Registered Owner	
Name:	PAUL R. ARGUS
Address:	3892 MCKAY CREEK DR. LARGO, FLORIDA 33770-4566

Weight		CG Range	
Maximum Weight:	2,750.00	FWD:	AFT:

As Received			
Previous Weight & Balance Date : 1-27-2006			
Empty Weight:	1,828.00	Useful Load:	922.00
Empty Weight CG:	87.47	Moment:	159,891.00

Item	Weight	Arm	Moment
REMOVED-GARMIN KLN89B GPS & TRAY	-3.0	56.60	-169.80
			0.00
			0.00
			0.00
			0.00
			0.00
			0.00

8-14-13
Superseded
Royal And
AIP 3202782

New			
Empty Weight:	1,825.00	Useful Load:	925.00
Empty Weight CG:	87.52	Moment:	159,721.20

Notes:

As Calculated ☒
As Weighed ☐

Prepared By: BENDER AVIATION SERVICES

Signature: Jeff Bender

Printed Name: JEFF BENDER

Repair Agency License No: 3162764

Date: 18/JUNE/2018

**WEIGHT AND BALANCE REVISION SHEET
AND SUPPLEMENTAL EQUIPMENT LIST**

REG#: N844AV

MAKE: PIPER

Model: PA28R-201

S/N: 28R-7737164

SUPERSEDED WEIGHT AND BALANCE DATED August 14, 2013

ITEM NAME	WEIGHT	ARM	MOMENT
Aircraft Weighed in the following condition:	1803.0	86.1	155237
KMA 24	(1.7)	60.8	(103)
KX 155	(5.5)	56.5	(311)
KI 209	(1.0)	59.6	(60)
KI 203	(1.0)	59.6	(60)
KT 76A	(2.3)	58.1	(134)
PM 3000	(0.1)	65.3	(7)
Horizon	(2.2)	59.4	(131)
DG	(2.6)	59.7	(155)
Vacuum System	(4.5)	37.1	(167)
T&B	(2.6)	59.7	(155)
Misc	(6.0)	45.0	(270)
PMA 6000M	1.5	60.8	91
IFD 540	6.8	56.5	384
KI 208	1.0	59.6	60
GTX 345	3.1	58.5	181
G5 Attitude	1.0	62.0	62
G5 HSI	1.0	62.0	62
GMU 11 (Left Wing)	0.3	105.0	32
GAD 29B	0.7	51.0	36
AP Controller	1.9	59.0	112
Transducer	0.2	47.0	9
RFGC	2.3	185.0	426
PFGC	3.0	185.0	555
Roll Servo	3.1	118.0	366
Pitch Servo	3.2	236.0	755
Flap Position	0.2	116.0	23
T&B	1.8	59.0	106
Misc	6.5	125.0	813
Stratus Power	0.2	64.0	13
TOTAL NEW WEIGHT & BALANCE	1811.3	87.1	157771

LOAD AIRCRAFT IN ACCORDNCE WITH AIRPLANE FLIGHT MANUAL.

MAXIMUM GROSS T.O. WEIGHT: 2750

NEW A/C EMPTY WEIGHT: 1811.3

NEW USEFUL LOAD: 938.7

NEW EMPTY WEIGHT CENTER OF GRAVITY 87.1 IN AFT OF DATUM

Alan Williams

Alan Williams
RS# DD6R283X

Avion Jet Center
2841 Flightline Avenue
Sanford, Florida 32773
Phone 407-328-9997 Fax 407-328-8442

SUPPLEMENTAL WEIGHT & BALANCE DATA / Equipment List

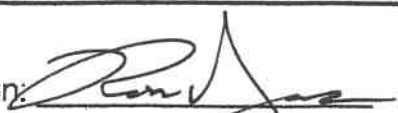
Aircraft Make: Piper
Aircraft Model: PA28R-201
Registration: N47483
Serial Number: 28R-7731764
7737164
Registered Owner: Avion Air Academy

<u>Description</u>	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
<u>Aircraft:</u>			
Previous Wt. & Bal.	1858.0	86.54	160800.0
01-29-01			
<u>Removed</u>			
KX 170 B	- 7.4	56.6	- 418.84
MX 170 B	- 6.0	56.6	- 339.60
KI 201 C	- 2.4	59.6	- 143.04
KI 214	- 2.9	59.9	- 173.71
KMA 20	- 2.3	70.8	- 162.84
Loran	- 3.7	56.6	- 209.42
<u>Installed</u>			
KX 155	5.5	56.6	311.30
KX 155	5.5	56.6	311.3
KI 209	1.0	59.6	59.6
KI 203	1.6	59.9	95.84
KMA 24	1.7	70.8	120.36
GPS Ant.	.26	85.0	22.10
GPS KLN 89B	2.55	56.6	144.33

Totals: 1851.41 160417.38

Center of Gravity 86.646

Updated Info:
4/23/04

Avion Jet Center
Authorized Sign: 
Ron Dass AP 470847011 IA

Avion Aircraft Maintenance, LLC.
1300 East 26th Place
Sanford, Florida 32773
Phone 407-585-3779 Fax 407-585-3750

SUPPLEMENTAL WEIGHT & BALANCE DATA

Aircraft Make: Cessna PI PER
Aircraft Model: PA-28R201
Registration: N844AV
Serial Number: 28R-7731764
7737164
Registered Owner: Avion Air Academy

<u>Description</u>	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
--------------------	---------------	------------	---------------

Aircraft weighed with full fuel and oil.

Aircraft:

Previous Wt. & Bal.	1851.41	86.646	160417.38
Dated 4-23-2004			

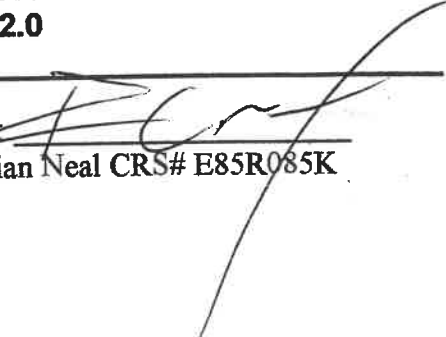
Weighed aircraft using evergreen electronic aircraft scales :

Nose Gear	490	15.60	7,644.00
Right main	840	109.70	92,148.00
Left Main	870	109.70	95,439.00
Totals:	2200	235.00	195,231.00
Less fuel 67 gal.	-402	95.00	-38,190.00
Add unusable fuel 5 gal.	30	95.00	2,850.00
	1828.00	87.467	159,891.00

Updated Info:

1-27-06

Aircraft Empty Weight : **1828.00**
Center of Gravity : **87.467**
Useful Load : **922.0**

Authorized Sign: 

Brian Neal CRS# E85R085K

CESSNA, MOONEY
AND PIPER
LES AND SERVICE

Jet Center

DAYTONA BEACH



561 PEARL HARBOR DRIVE • DAYTONA BEACH, FLORIDA 32114 • (904) 255-0471 • FAX (904) 253-2573
N47483 Date 01/29/01 TACH 4427.9
PA28R-201
7737164

Weighed A/C in accordance with A/C Service Manual and
Owners Manual. A/C Weighed with full fuel and fluids except as noted.

	Weight	Arm	Moment
NOSE	520	15.60	8112.00
RT MAIN	870	109.70	95439.00
LT MAIN	870	109.70	95439.00
	<u>2260</u>	<u>88.05</u>	<u>198990.00</u>
Fuel			
MAINS 67	402	95.00	38190.00
		0.00	0.00
	<u>1858</u>	<u>86.54</u>	<u>160800.00</u>
New Empty Weight	1858		
Usefull Load	892		
A/C Gross Wt	2750		

Notes:

Daytona Beach Jet center
CRS DYTR 262 K WO# 2577

SECTION 6
WEIGHT AND BALANCE

PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III

	Weight (Lbs)	Arm Aft Datum (Inches)	Moment (In-Lbs)
Basic Empty Weight	1782.27	87.28	155,558.32
Pilot and Front Passenger		80.5	
Passengers (Rear Seats)		118.1	
Fuel (72 Gallon Maximum)		95.0	
Baggage		142.8	
Moment due to Retraction of Landing Gear		1	819
Total Loaded Airplane			

Totals must be within approved weight and C.G. limits. It is the responsibility of the airplane owner and the pilot to insure that the airplane is loaded properly. The Basic Empty Weight C.G. is noted on the Weight and Balance Data Form (Figure 6-5). If the airplane has been altered, refer to the Weight and Balance Record for this information.

WEIGHT AND BALANCE LOADING FORM

Figure 6-11

	<u>WT</u>	<u>ARM</u>	<u>moment</u>
96 Last Config with 2 Blade Prop	1770.7	87.15	154312.0
78 Airframe Modifications	11.57	107.72	1246.32
	<u>1782.27</u>		<u>155,558.32</u>

TOTAL GROSS WT = 2750.165

Useful Load = 967.73 lbs
Superceded 1-25-01

CORRANT 05/3/99

ISSUED: DECEMBER 21 1976

3 Blade Prop Installed

Florida Flight Training, Inc.

WEIGHT AND BALANCE

AIRCRAFT—ARROW # N47483 Only

Revised 8/98

	Weight	X	Arm	=	Moment
Basic Empty Weight	1793		87.15		156260
Pilot and Front Passenger			80.5		
Passengers (Rear Seats)			118.1		
Fuel (72 Gallon Maximum) 25			95.0		
Baggage			142.8		
Moment due to Retraction of Landing Gear					819
Total Loaded Airplane					

Total Gross Weight = 2750

$$CG = \frac{\text{Total Moment}}{\text{Total Weight}}$$

VOID - 3 Blade Prop Removed 3/12/99

Superseded 3/99

QUEST AVIONICS, INC.
FAA Repair Station QVNR604L
P.O. Box 770028 1550 SW 60th Ave.
Ocala, FL 32677 Ocala, FL 32674
904-873-0000 FAX 904-873-0460

DATE: 1/18/96

WEIGHT AND BALANCE DATA AND/OR SUPPLEMENTAL EQUIPMENT LIST

AIRCRAFT

=====

MAKE	PIPER	MODEL	PA28R-201	S/N	28R-7737164	REG. NO.	N47483
=====	=====	=====	=====	=====	=====	=====	=====
TEM				WEIGHT		ARM	MOMENT
=====	=====	=====	=====	=====	=====	=====	=====

=====

AST WT DATE:	8/11/95	1773.50	87.14	154536.20
--------------	---------	---------	-------	-----------

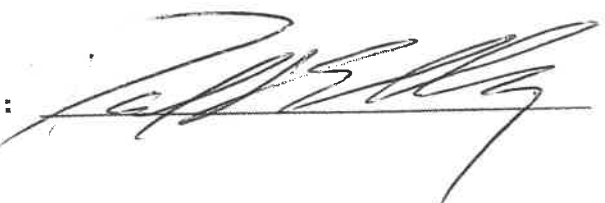
	REMOVED			
1	EA INSIGHT SF-2000 STRIKEFINDER			
	DISPLAY	-1.20	59.00	-70.80
	ANTENNA/SENSOR	-0.50	126.00	-63.00
	CABLE	-1.00	90.00	-90.00
1	EA SIGMATEK 4000H-7 DG	-2.50	59.00	-147.50
1	EA CENTURY 615C INVERTER	-0.50	48.00	-24.00
	INSTALLED			
1	EA MITCHELL 52D54 DG	2.90	59.00	171.10

NEW EMPTY WT: 1770.70 lbs

NEW C.G. 87.15 inches

NEW MOMENT: 154312.00

NEW USEFUL LOAD: 979.30 lbs

SIGNATURE: 

Spence 8/98

February 08, 1994

PA28R-201

N47483

S/N 28R-7737164

EQUIPMENT LIST - WEIGHT & BALANCE DATA

	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Existing Aircraft	1789.7	86.3	154445.0
Removed:			
Air Conditioner Compressor	- 19.0	+ 7.0	- 133.0
	<u>1770.7</u>		<u>154312.0</u>

New Empty Weight
New Moment
New EWCG
Useful Load

1770.7
154312.0
87.1
979.3

Michael C. Lloyd

Michael C. Lloyd
AP415869827
Tri-City Aviation, Inc.
Kingsport, TN 37663

Approved
8/11/95

QUEST AVIONICS, INC.
FAA Repair Station QVNR604L
P.O. Box 770028 1550 SW 60th Ave.
Ocala, FL 32677 Ocala, FL 32674
904-873-0000 FAX 904-873-0460

DATE: 8/11/95

WEIGHT AND BALANCE DATA AND/OR SUPPLEMENTAL EQUIPMENT LIST

AIRCRAFT

MAKE PIPER MODEL PA28R-201 S/N 28R-7737164 REG. NO. N47400

ITEM	WEIGHT	ARM	MOMENT
------	--------	-----	--------

AST WT DATE: 2/08/94	1770.70	87.10	154332.70
----------------------	---------	-------	-----------

1	REMOVED EA MITCHELL 52D54 DG	-2.90	59.00	-171.10
	INSTALLED			
1	EA SIGMATEK 4000H-7 DG	2.50	59.00	147.50
1	EA INSIGHT SF-2000 STRIKEFINDER S			
	SF-2000 DISPLAY	1.20	59.00	70.80
	SF-2000 ANT/SENSOR	0.50	126.00	63.00
	CABLE	1.00	90.00	90.00
1	EA CENTURY 615C INVERTER	0.50	48.00	24.00

NEW EMPTY WT: 1773.50 lbs NEW C.G. 87.14 inches

NEW MOMENT: 154536.20 NEW USEFUL LOAD: 976.50 lbs

SIGNATURE: 

Date 18 OCT 77
47483

MONTGOMERY AVIATION
P. O. Box 92
Montgomery, Alabama 36101

Certified Repair
Station #5370

Page 1 of 1
Model PA-28R-201
Serial # 28R-7737164

REVISED WEIGHT AND BALANCE DATA

ITEM	WEIGHT	ARM	MOMENT
Previous Empty Weight	1787.9	85.0	151923
REMOVED THE FOLLOWING			
1. CCC ELT	- 1.7	236.2	-401.5
INSTALLED THE FOLLOWING			
1. Narco ELT-10	3.5	236.7	828.5
	<u>1789.7</u>		<u>2899.6</u>
			<u>154421.1</u>
			<u>154445</u>

Revised / Superseded!
2-8-94

EMPTY WEIGHT AND C.G. IS 1789.7 LBS. AT 86.3 INCHES
AFT OF DATUM.

NEW USEFUL LOAD IS 960.3 LBS.

Prepared By James W. Adams
Inspector CRS 5370

11

7

11

11

11

11

11

11

11

11

11

11

11

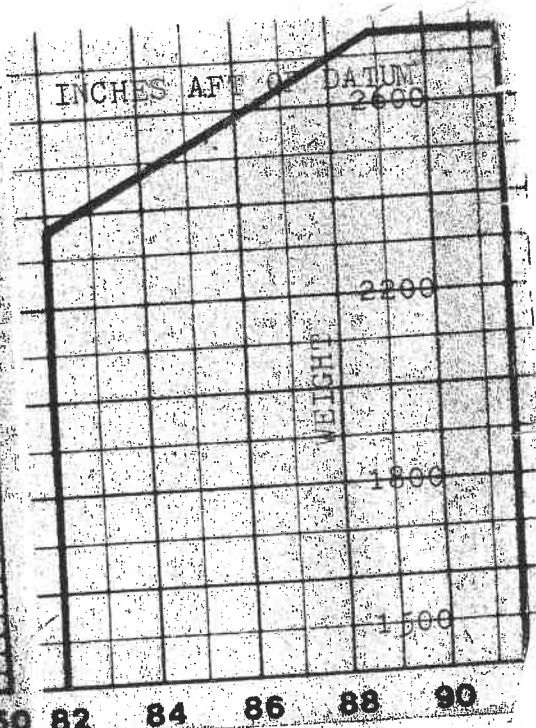
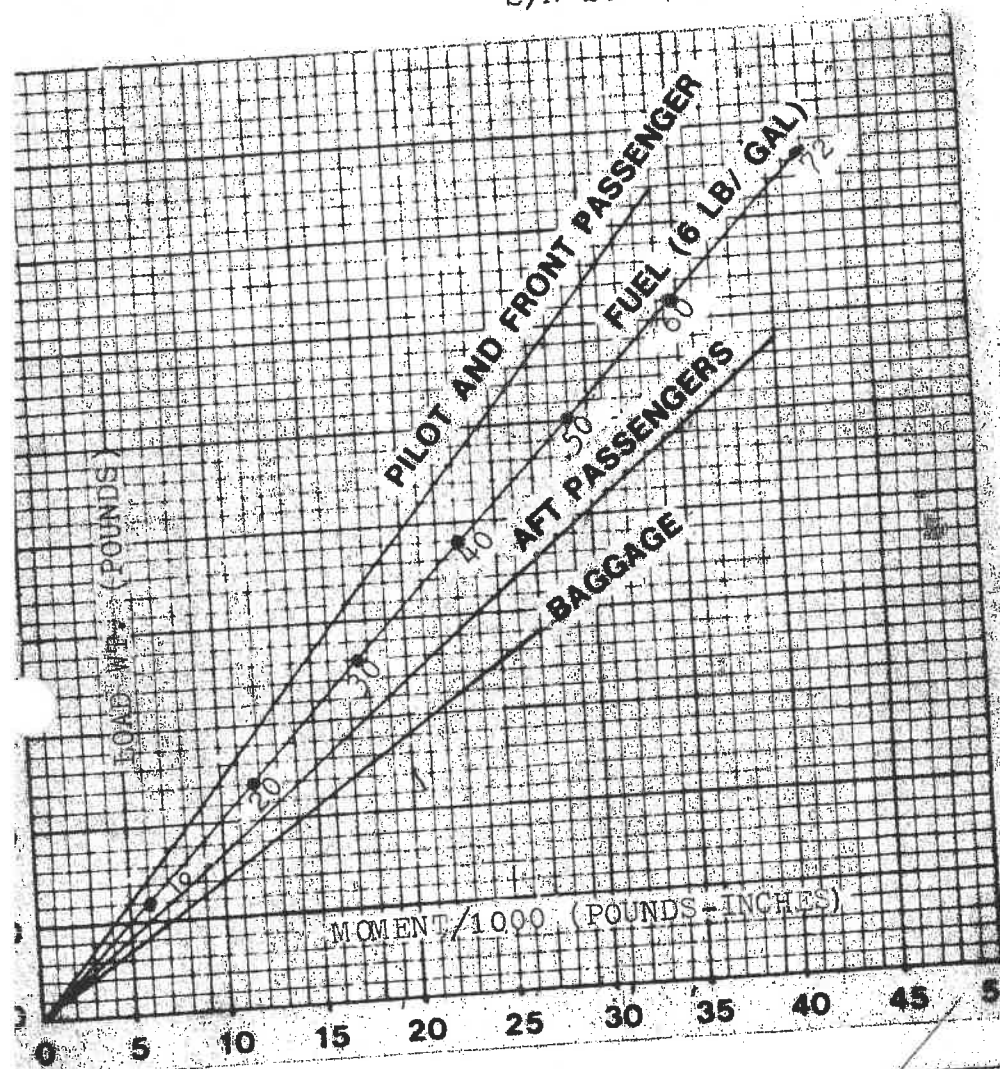


WEIGHT AND BALANCE

PA-28R-201

N47483

S/N 28R-7737164



	Weight (Lbs)	Arm Aft Datum (Inches)	Moment (In-Lbs)
Basic Empty Weight	1780.7	86.3	154421.1
Pilot and Front Passenger	1770.7	80.5	154342.0
Passengers (Rear Seats)		118.1	
Fuel (72 Gallon Maximum)		95.0	
Baggage		142.8	
Moment due to Retraction of Landing Gear			819
Total Loaded Airplane			

2/5/94

6.9 EQUIPMENT LIST

The following is a list of equipment which may be installed in the PA-28R-201. It consists of those items used for defining the configuration of an airplane when the basic empty weight is established at the time of delivery. Only those standard items which are alternate standard items and those required to be listed by the certificating authority (FAA) are presented. Items marked with an "X" are those items which were installed on the airplane described below as delivered by the manufacturer.

PIPER AIRCRAFT CORPORATION

PA-28R-201 CHEROKEE ARROW III

SERIAL NO. PA-28R-7737164 REGISTRATION NO. N844AV DATE: 11/21/12

(a) Propeller and Propeller Accessories

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
1	a. Propeller, McCauley B2D34C213 90DHA-16 Cert. Basis - TC P7EA	<u>X</u>	49.0	-1.9	-93
	b. Propeller, Hartzell HC-C2YK-1()F F7666A-2R Cert. Basis - TC P920	<u> </u>	55.0	-1.9	-105
2	a. Spinner and Attachment Plate Installation PAC Dwg. 35828-2 (For McCauley Prop.) Cert. Basis - TC 2A13	<u>X</u>	4.7	-2.2	-10
	b. Spinner and Attachment Plate Installation PAC Dwg. 99374 (For Hartzell Prop.) Cert. Basis - TC 2A13	<u> </u>	5.0	-2.2	-11
3	Propeller Governor Hartzell Model F-2-7 () Cert. Basis - TC P7EA	<u>X</u>			

THIS PAGE INTENTIONALLY LEFT BLANK

(b) Engine and Engine Accessories

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
5	Lycoming Model IO-360-C1C6 Cert. Basis - TC 1E1O	X			

THIS PAGE INTENTIONALLY LEFT BLANK

(c) Landing Gear and Brakes

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
11	Two Main Wheel Assemblies	X			
	a. Cleveland Aircraft Products				
	Wheel Assy. No. 40-86				
	Brake Assy. No. 30-55				
	Cert. Basis - TSO C26a				
	b. 6.00-6 Type III 6 Ply	X			
	Rating Tires with Regular Tubes				
	Cert. Basis - TSO C62				
13	Nose Wheel Assembly				
	a. Cleveland Aircraft Products				
	Wheel Assy. No. 40-77	X	2.6	15.5	40
	Cert. Basis - TSO C26a				
	b. McCauley Industrial Corp.				
	Wheel Assy. No. D-30500		3.6	15.5	56
	Cert. Basis - TSO C26b				
	c. 5.00-5 Type III 4 Ply				
	Rating Tire with Regular Tube				
	Cert. Basis - TSO C62				

**SECTION 6
WEIGHT AND BALANCE**

**PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III**

THIS PAGE INTENTIONALLY LEFT BLANK

(d) Electrical Equipment

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

**SECTION 6
WEIGHT AND BALANCE**

**PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III**

THIS PAGE INTENTIONALLY LEFT BLANK

(e) Instruments

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
21	Altimeter, Piper PS50008-50-2 Cert. Basis - TSO C10b				
23	Airspeed Indicator Piper PS50049-32S Cert. Basis - TSO C2b				
25	Manifold Pressure and Fuel Flow Indicator Piper PS50031-6 Cert. Basis - TSO C45, C47				
27	Compass Cert. Basis - TSO C7c				

THIS PAGE INTENTIONALLY LEFT BLANK

(f) Miscellaneous

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
33	Front Seat Belts (2) Piper PS50039-4-2A Cert. Basis - TSO C22f				
35	Rear Seat Belts (2) Piper PS50039-4-3A Cert. Basis - TSO C22f				

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.)
-------------	------	-------------------	--------------------	------------------------	--------------------

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.)
-------------	------	-------------------	--------------------	------------------------	--------------------

**SECTION 6
WEIGHT AND BALANCE**

**PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III**

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.)
-------------	------	-------------------	--------------------	------------------------	--------------------

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 Cert. Basis - TC 2A13	☒	0.3	62.8	19
81	Instrument Light, Grimes 15-0083-7 Cert. Basis - TC 2A13	☒	0.1	99.0	10
83	Cabin Light Cert. Basis - TC 2A13	☒	0.3	99.0	30
85	Landing Light, G.E. Model 4509 Cert. Basis - TC 2A13	☒	0.5	10.0	5
87	Navigation Lights (Wing) (2) Grimes Model A1285 (Red) and Green) Cert. Basis - TC 2A13	☒	0.4	106.6	43
89	Navigation Light (Rear) (1), Grimes Model A2064 (White) Cert. Basis - TC 2A13	☒	0.2	281.0	56
91	Rotating Beacon Cert. Basis - TC 2A13	☐	1.5	263.4	395
93	Anti-Collision Lights (Wing Tip) (Whelen) Cert. Basis - STC SA615EA	☒	5.7	157.9	900
95	Heated Pitot Head, Cert. Basis - TC 2A13	☒	0.4	100.0	40
97	Piper Pitch Trim Piper Dwg. 67496-3 Cert. Basis - TC 2A13	☐	4.3	155.3	668
99	Battery 12V 35 A.H. Rebat R35 (Wt. 27.2 lbs.) Cert. Basis - TC 2A13	☒	*5.3	168.0	890

*Weight and moment difference between standard and optional equipment.

SECTION 6
WEIGHT AND BALANCE

PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III

(i) Electrical Equipment
(Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
101	Auxiliary Power Receptacle, Piper Dwg. 65647 Cert. Basis - TC 2A13	_____	2.7	178.5	482
103	External Power Cable, Piper Dwg. 62355-2 Cert. Basis - TC 2A13	_____	4.6	142.8	657
105	Lighter, 200462, 12 Volt Universal Cert. Basis - TC 2A13	_____	0.2	62.9	13

(k) Instruments
(Optional Equipment)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
113	Vacuum System Installation Cert. Basis - TC 2A13	<u>X</u>	4.5	37.1	167
115	Attitude Gyro. Piper Dwg. 99002-3, -4 or -8 Cert. Basis - TSO C4c	<u>X</u>	2.2	59.4	131
117	Directional Gyro. Piper Dwg. 99003-3, -4 or -7 Cert. Basis - TSO C5c	<u>X</u>	2.6	59.7	155
119	NSD-360 Gyro Cert. Basis - TSO C6c, C9c, C52c	<u>X</u>	4.1	59.0	241
121	Tru-Speed Indicator, Piper PS50049-32T Cert. Basis - TSO C2b	<u>X</u>	(same as standard equipment)		
123	Altimeter. Piper PS50008-4 or -5 Cert. Basis - TSO C10b	<u>X</u>	(same as standard equipment)		
125	Encoding Altimeter, Piper PS50008-6 or -7 Cert. Basis - TSO C10b, C88	<u> </u>	*0.9	60.3	54
127	Vertical Speed Piper Dwg. 99010-5 Cert. Basis - TSO C8b	<u>X</u>	1.0	60.9	61
129	Alternate Static Source Cert. Basis - TC 2A13	<u>X</u>	0.4	61.0	24
131	Turn and Slip Indicator, Piper PS50030-2 or -3 Cert. Basis - TSO C3b	<u>X</u>	2.6	59.7	155
133	Exhaust Gas Temperature, Piper Dwg. 69190-0 Cert. Basis - TC 2A13	<u>X</u>	0.7	55.4	39

*Weight and moment difference between standard and optional equipment.

SECTION 6
WEIGHT AND BALANCE

PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III

(k) Instruments
(Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
135	MK 10 Radar Altimeter Piper Dwg. 37693-2 Cert. Basis - TC 2A13	_____	5.4	156.3	844
137	Engine Hour Meter Piper Dwg. 79548-0 Cert. Basis - TC 2A13	<u>X</u>	0.3	61.2	18
139	Clock Cert. Basis - TC 2A13	<u>X</u>	0.4	62.4	25
141	Air Temperature Gauge. Piper Dwg. 79316 Cert. Basis - TC 2A13	_____	0.2	72.6	15

(1) Autopilots
(Optional Equipment)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
147	AutoFlite II Cert. Basis - STC SA3162SW-D	_____	5.6	91.8	514
149	AutoControl IIIB Cert. Basis - STC SA3161SW-D	<u> X </u>	9.6	77.6	745
	a Directional Gyro #52D54	_____	2.9	59.0	171
	b. Omni Coupler 1C-388	_____	1.0	59.3	59

THIS PAGE INTENTIONALLY LEFT BLANK

(m) Radio Equipment
(Optional Equipment)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
161	Collins VHF-251 Comm Transceiver				
	a. Single	_____	3.4	56.9	193
	b. Dual	_____	6.8	56.9	387
	Cert. Basis - TSO C37b, C38b				
163	Collins VIR-351 Nav Receiver				
	a. Single	_____	2.7	57.4	155
	b. Dual	_____	5.4	57.4	310
	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	181.8	364
171	Collins RCR-650 ADF Receiver and Antenna and IND-650 Indicator				
	Cert. Basis - TSO C41c	_____	6.6	104.8	692
173	Collins AMR-350 Audio/Marker Panel				
	Cert. Basis - TSO C35d, C50b	_____	*3.3	110.0	363

*Weight includes antenna and cable.

SECTION 6
WEIGHT AND BALANCE

PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III

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

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
175	Collins TDR-950 Transponder Cert. Basis - TSO C74c	_____	2.8	63.2	177

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

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
177	King KX 170 () VHF Comm/Nav				
	a. Transceiver, Single	_____	7.5	56.6	425
	b. Transceiver, Dual	_____	15.0	56.6	849
	Cert. Basis - TC 2A13				
179	King KX 175 () VHF				
	a. Transceiver.	_____	9.4	56.6	532
	b. King KN 73 Glide Slope Receiver.	_____	3.2	184.3	590
	c. King KN 77 VOR/LOC Converter.	_____	3.6	183.6	661
	d. King KNI 520 VOR/ILS Indicator	_____	2.8	60.5	169
	Cert. Basis - TSO C36c, C37b, C38b, C40a				
181	King KX 175 () VHF				
	a. Transceiver (2nd).	_____	8.6	56.6	487
	b. King KN 77 VOR/LOC Converter.	_____	4.2	183.6	771
	c. King KNI 520 VOR/ILS Indicator	_____	2.8	60.5	169
	Cert. Basis - TSO C36c, C37b, C38b, C40a				
183	King KI 201 () VOR/LOC Ind.				
	a. Single	_____	2.5	59.6	149
	b. Dual	_____	5.0	59.9	300
	Cert. Basis - TC 2A13				
185	King KI 213 VOR/LOC/GS Indicator				
	Cert. Basis - TC 2A13	_____	2.5	60.4	151
187	King KI 214 () VOR/LOC/GS Ind.				
	Cert. Basis - TC 2A13	_____	3.3	59.9	198
189	King KN 74 R-Nav				
	Cert. Basis - TC 2A13	_____	4.7	56.6	266

SECTION 6
WEIGHT AND BALANCE

PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III

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

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
191	King KN 61 DME Cert. Basis - TC 2A13	_____	12.5	179.0	2237
193	King KN 65A DME Cert. Basis - TSO C66a	_____	13.0	174.9	2274
195	King KR 85 Digital ADF a. Audio Amplifier Cert. Basis - TSO C41b	_____ _____	8.6 0.8	85.2 51.0	733 41
197	King KR 86 ADF a. First b. Second c. Audio Amplifier Cert. Basis - TC 2A13	_____ _____ _____	6.7 9.7 0.8	91.6 107.0 51.0	614 1038 41
199	King KMA 24() Audio Panel Cert. Basis - TSO C35c, C50b	_____	*3.7	70.8	262
201	King KT 76()/78() Transponder Cert. Basis - TSO C74b	X	*3.1	58.1	180
202	KX 155	X	5.5	56.6	311.3
203	KX 155	X	5.5	56.6	311.3
204	KI 209	X	1.0	59.6	59.6
205	KI 203	X	1.6	59.9	95.84
206	KMA 24	X	1.7	70.8	120.36

*Weight includes antenna and cable.

PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III

SECTION 6
WEIGHT AND BALANCE

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

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
203	Narco Comm 10A VHF Transceiver Cert. Basis - TC 2A13	_____	3.9	57.4	224
205	Narco Comm 11A VHF Transceiver a. Single b. Dual Cert. Basis - TC 2A13	_____ _____ _____	3.6 7.1	57.4 57.4	207 408
207	Narco Comm 11B VHF Transceiver a. Single b. Dual Cert. Basis - TC 2A13	_____ _____ _____	3.9 7.8	57.4 57.4	224 448
209	Narco Comm 111 VHF Transceiver a. Single b. Dual Cert. Basis - TSO C37b, C38b	_____ _____ _____	3.0 6.0	57.4 57.4	172 344
211	Narco Comm 111B VHF Transceiver a. Single b. Dual Cert. Basis - TSO C37b, C38b	_____ _____ _____	3.9 7.8	57.4 57.4	224 448
213	Narco Comm 120 VHF Transceiver a. Single b. Dual Cert. Basis - TSO C37b, C38b	_____ _____ _____	4.8 8.6	56.9 57.4	273 494
215	Narco Nav 10 VHF Receiver Cert. Basis - TC 2A13	_____	1.9	58.6	111
217	Narco Nav 11 VHF Receiver a. Single b. Dual Cert. Basis - TC 2A13	_____ _____ _____	2.8 5.6	58.6 58.6	164 328
219	Narco Nav 12 VHF Receiver Cert. Basis - TC 2A13	_____	3.4	58.6	199

ISSUED: DECEMBER 21, 1976
REVISED: JULY 14, 1977

REPORT: VB-870
6-45

SECTION 6
WEIGHT AND BALANCE

PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III

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

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
221	Narco Nav 14 VHF Receiver Cert. Basis - TC 2A13	_____	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
229	Narco Nav 121 VHF Receiver a. Single b. Dual Cert. Basis - TSO C36c, C40c, C66a	_____ _____	3.1 6.2	58.4 58.4	181 362
231	Narco Nav 122 VHF Receiver a. Single b. Dual Cert. Basis - TSO C35d, C36c, C40c, C66a	_____ _____	* 5.1 * 8.6	99.4 82.9	507 713
233	Narco Nav 122A VHF Receiver a. Single b. Dual Cert. Basis - TSO C34c, C35d, C36c, C40c, C66a	_____ _____	* 5.2 * 8.8	98.5 82.2	512 723
235	Narco Nav 124A VHF Receiver a. Single b. Dual Cert. Basis - TSO C35d, C36c, C40a, C66a	_____ _____	* 6.2 * 10.9	92.3 77.2	572 841
237	Narco Nav 124R VHF Receiver Cert. Basis - TSO C36c, C40a, C66a	_____	4.4	57.5	253

*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.)
239	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				
241	Narco OC-110 Converter and Mount				
	Cert. Basis - TSO C36c, C40a	_____	2.1	185.5	390
243	Narco UGR-2A Glide Slope				
	a. Single	_____	4.2	154.0	647
	b. Dual	_____	8.4	220.0	1848
	Cert. Basis - TSO C34b				
245	Narco UGR-3 Glide Slope				
	Cert. Basis - TC 2A13	_____	4.2	154.0	647
247	Narco MBT-12-R, Marker Beacon				
	Cert. Basis - TC 2A13	_____	3.1	69.1	214
249	Narco CP-125 Audio Selector Panel				
	Cert. Basis - TC 2A13	_____	2.2	55.0	121
251	Narco CP-135 Audio Selector Panel				
	Cert. Basis - TSO C50b	_____	2.2	55.0	121
253	Narco CP-135M Audio Selector Panel				
	Cert. Basis - TSO C50b, C35d	_____	* 3.7	114.3	423
255	Narco CLC-60A R-Nav				
	a. Narco SA-11 Adapter	_____	9.6	140.1	1345
	Cert. Basis - TC 2A13	_____	0.7	174.0	122

*Weight includes marker antenna and cable.

SECTION 6
WEIGHT AND BALANCE

PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III

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

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
257	Narco DME-190 Cert. Basis - TC 2A13	_____	* 5.9	60.9	359
259	Narco DME-190 TSO Cert. Basis - TSO C66a	_____	* 5.9	60.9	359
261	Narco DME-195 Receiver and Indicator Cert. Basis - TSO C66a	_____	* 13.2	154.5	2039
263	Narco ADF-140 a. Single b. Dual Cert. Basis - TSO C41c	_____ _____ _____	6.0 ** 17.9	91.2 107.6	547 1926
265	Narco ADF-141 a. Single b. Dual Cert. Basis - TSO C41c	_____ _____ _____	6.0 ** 17.9	91.2 107.6	547 1926
267	Narco AT50A Transponder Cert. Basis - TSO C74b a. Narco AR-500 Altitude Encoder Cert. Basis - TSO C88	_____ _____ _____	* 3.0 1.0	57.3 51.5	172 52
269	Narco AT150 Transponder Cert. Basis - TSO C74c a. Narco AR500 Altitude Encoder Cert. Basis - TSO C88	_____ _____ _____	* 3.0 1.0	57.3 51.5	172 52

*Weight includes antenna and cable.

**Weight includes dual antenna and cable.

**PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III**

**SECTION 6
WEIGHT AND BALANCE**

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

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
271	Antenna and Cable				
	a. Nav Receiving	_____	1.4	195.7	274
	b. 1 VHF Comm	_____	0.7	125.7	88
	c. * 2 VHF Comm	_____	0.8	147.5	118
	d. Glide Slope (Single)	_____	0.9	122.2	110
	e. Glide Slope (Dual)	_____	2.8	154.0	431
	f. Single ADF Sense	_____	0.4	147.5	59
	Cert. Basis - TC 2A13				
273	Anti Static Antenna and Cable				
	a. * 1 VHF Comm	_____	1.4	144.3	202
	b. * 2 VHF Comm	_____	1.5	170.7	256
	c. Single ADF Sense	_____	0.5	147.5	74
	Cert. Basis - TC 2A13				
275	Emergency Locator Transmitter	<u> X </u>	1.7	236.2	402
	a. Antenna and Coax	<u> X </u>	0.2	224.4	45
	b. Shelf and Access Hole	<u> X </u>	0.3	235.4	71
	Cert. Basis - TC 2A13				
277	Microphone				
	a. Piper Dwg. 68856-10	_____	0.3	64.9	19
	b. Piper Dwg. 68856-11	_____	0.6	69.9	42
	c. Piper Dwg. 68856-12	_____	0.3	64.9	19
	Cert. Basis - TC 2A13				
279	Boom Microphone - Headset Piper Dwg. 37921-2				
	Cert. Basis - TC 2A13	_____	0.3	80.5	24
281	Cabin Speaker Piper Dwg. 63239-2				
	Cert. Basis - TC 2A13	<u> X </u>	0.8	99.0	79
283	Headset, Piper Dwg. 68856-10				
	Cert. Basis - TC 2A13	_____	0.5	60.0	30

SECTION 6
WEIGHT AND BALANCE

PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III

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

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

THIS PAGE INTENTIONALLY LEFT BLANK

**SECTION 6
WEIGHT AND BALANCE**

**PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III**

THIS PAGE INTENTIONALLY LEFT BLANK

**PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEKOEK ARROW III**

**SECTION C
WEIGHT AND BALANCE**

(n) Miscellaneous
(Optional Equipment)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
323	Zinc Chromate Finish Cert. Basis - TC 2A13	_____	5.0	158.0	790
325	Stainless Steel Control Cables Cert. Basis - TC 2A13	_____	—	—	—
327	Air Conditioner. Cert. Basis - TC 2A13	_____	69.8	105.7	7378
329	Overhead Vent System Piper Dwg. 76304-11 Cert. Basis - TC 2A13	<u> X </u>	6.4	159.6	1022
331	Overhead Vent System with Ground Ventilating Blower Piper Dwg. 76304-12 Cert. Basis - TC 2A13	_____	14.9	172.2	2566
333	Assist Step. Piper Dwg. 65384 Cert. Basis - TC 2A13	<u> X </u>	1.8	156.0	281
335	Super cabin Sound Proofing. Piper Dwg. 79601-4 Cert. Basis - TC 2A13	_____	18.1	86.8	1571
337	Adjustable Front Seat (Left). Piper Dwg. 79591-0 or 79591-2 Cert. Basis - TC 2A13	<u> X </u>	*6.6	80.3	530
339	Adjustable Front Seat (Right). Piper Dwg. 79591-1 or 79591-3 Cert. Basis - TC 2A13	<u> X </u>	*6.6	79.6	525

*Weight and moment difference between standard and optional equipment.

ISSUED: DECEMBER 21, 1976
REVISED: JULY 14, 1977

REPORT: VB-870
6-53 |

SECTION 6
WEIGHT AND BALANCE

PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III

(n) Miscellaneous (Optional Equipment) (cont)						
Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)	
341	Headrests (2) Front, Piper Dwg. 79337-18 Cert. Basis - TC 2A13	_____	2.2	94.5	208	
343	Headrests (2) Rear, Piper Dwg. 79337-18 Cert. Basis - TC 2A13	_____	2.2	132.1	291	
345	Oversize Headrests (2) Front Cert. Basis - TC 2A13	_____	3.2	94.5	302	
347	Oversize Headrests (2) Rear Cert. Basis - TC 2A13	_____	3.2	132.1	423	
349	Inertia Safety Belts (Rear) (2) 0.8 lbs. each. Piper PS50039-4-14 Cert. Basis - TC 2A13	_____	1.6	140.3	224	
351	Assist Strap. Piper Dwg. 79455 Cert. Basis - TC 2A13	_____	0.2	109.5	22	
353	Curtain and Rod Instl. Piper Dwg 79721-3 Cert. Basis - TC 2A13	_____	1.2	129.2	155	
355	Curtain and Rod Instl. Piper Dwg. 67955-2 Cert. Basis - TC 2A13	_____	4.2	124.0	521	
357	Deluxe Carpeting Cert. Basis - TC 2A13	_____	*-1.8	101.9	-183	
359	Luxurious Interior Piper Dwg. 67952-3 Cert. Basis - TC 2A13	_____	17.0	101.9	1732	

*Weight and moment difference between standard and optional equipment.

PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III

SECTION 6
WEIGHT AND BALANCE

(n) Miscellaneous
(Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
364	Fire Extinguisher				
	a. Piper Dwg. 76167-2 (Scott 42211-00)	<u>X</u>	4.6	71.0	327
	b. Piper Dwg. 37872-2 (Graviner HA1014-01)	<u> </u>	5.6	57.9	324
	Cert. Basis - TC 2A13				
365	Rosen Survivor Systems, LLC Survivors (2)	<u>X</u>	3.0	78.4	235.2
TOTAL OPTIONAL EQUIPMENT			<u> </u>	<u> </u>	<u> </u>

EXTERIOR FINISH

Base Color

Registration No. Color

Trim Color

Type Finish

Accent Color

ISSUED: DECEMBER 21, 1976
REVISED: APRIL 13, 1981

REPORT: VB-870
6-55

**SECTION 6
WEIGHT AND BALANCE**

**PIPER AIRCRAFT CORPORATION
PA-28R-201, CHEROKEE ARROW III**

THIS PAGE INTENTIONALLY LEFT BLANK