

AIRCRAFT WEIGHT CONTROL

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Page 1 of 1

LOAD DATA SHEET

Aircraft Type: Piper PA44-180

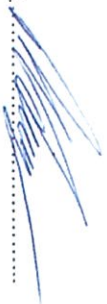
Aircraft Reg.: VH-ZUD

Aircraft S/No.: 4496311

Approved Loading System:

Load the aircraft in accordance with the Approved Flight Manual.

AUTHORISED	DATE	DATE OF EXPIRY	ISSUE
R. Hoenger	27-Jul-23	Indefinite	3

APPROVAL APPROVED BY R. HOENGER Signed:  Date: 27-Jul-23 Weight Control Authority No. A130284
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AIRCRAFT WEIGHT AND CENTRE OF GRAVITY DATA

ITEM	WEIGHT KG	ARM MM	INDEX UNITS KGMM	CONFIGURATION
Empty Weight	1,224	2,202	2,694,806	4 Seats Total
	LB	IN	LBIN	
Empty Weight	2,698	86.7	233,899	4 Seats Total

EMPTY WEIGHT: includes UNUSABLE FUEL and FULL OIL.

Datum: 78.4in (1991mm) forward of wing leading edge at wing str 106

6.7 WEIGHT AND BALANCE DETERMINATION FOR FLIGHT

(Continued)

	Weight (Lbs)	Arm Aft Datum (Inches)	Moment (In-Lbs)
Basic Empty Weight			
Pilot and Front Passenger		80.5	
Passengers (Rear Seats)		118.1	
Fuel (108 Gallon Maximum Usable)		95.0	
Baggage (200 Lb. Limit)		142.8	
Ramp Weight (3816 Lbs. Max.)			
Fuel Allowance for Engine Start, Taxi & Ramp	-16.0	95.0	-1520
Take-off Weight (3800 Lbs. Max.)			

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

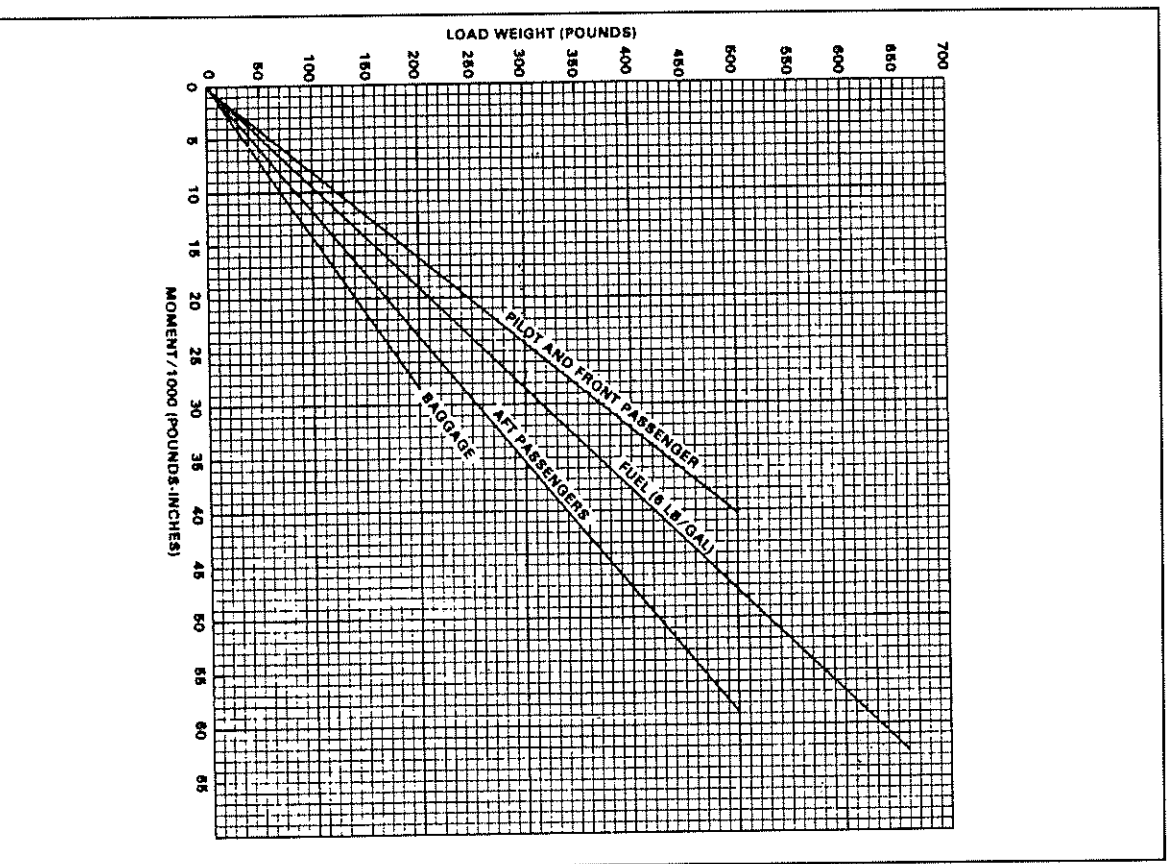
Take-off Weight			
Minus Estimated Fuel Burn-off (climb & cruise) @ 6.0 Lbs/Gal.		95.0	
Landing Weight			

Locate the center of gravity of the landing weight on the C.G. range and weight graph. If this point falls within the weight- C.G. envelope, the loading may be assumed acceptable for landing.

IT IS THE RESPONSIBILITY OF THE PILOT AND AIRCRAFT OWNER TO ENSURE THAT THE AIRPLANE IS LOADED PROPERLY AT ALL TIMES.

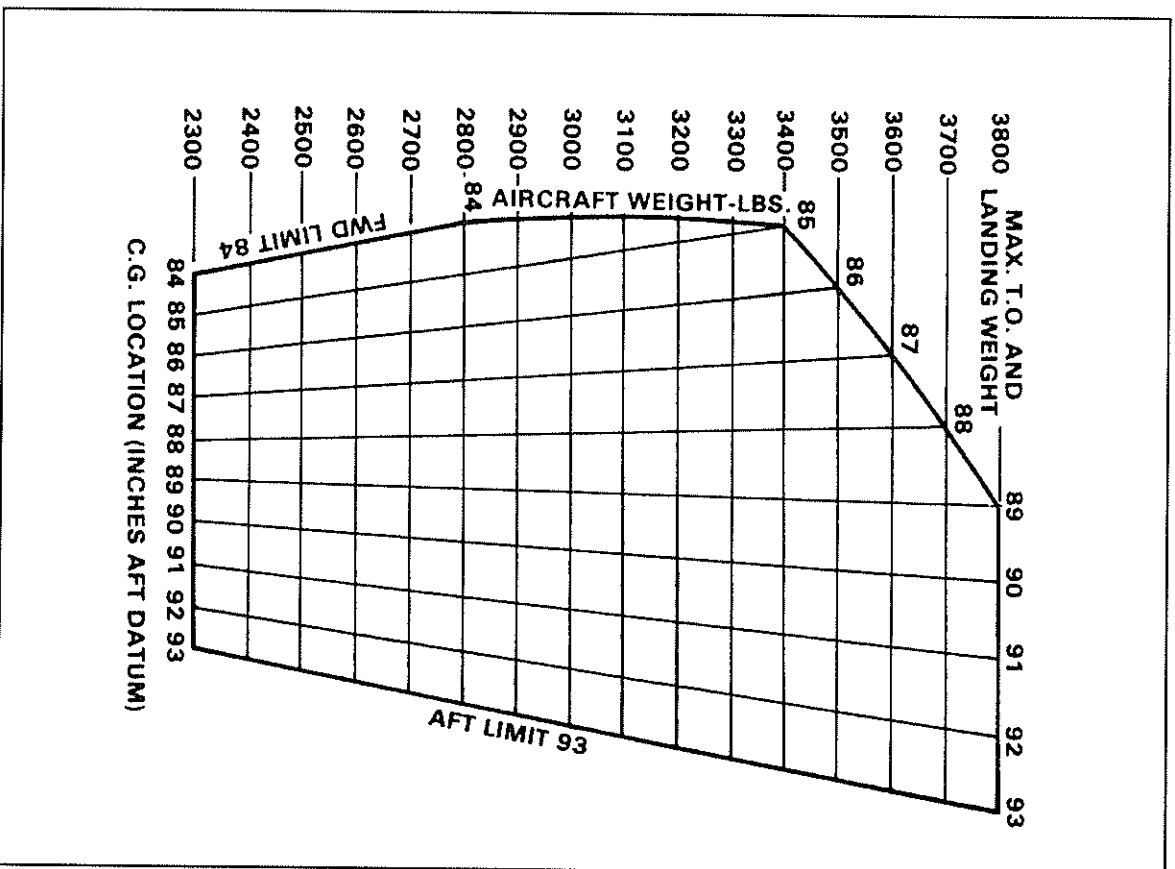
WEIGHT AND BALANCE LOADING FORM

Figure 6-11



LOADING GRAPH

Figure 6-13



C.G. RANGE AND WEIGHT

Figure 6-15

TAKEOFF DISTANCE OVER 50 FT OBSTACLE - SHORT FIELD EFFORT

ASSOCIATED CONDITIONS:

Wing Flaps: 0°
 Cowl Flaps: OPEN
 Power: 2700 RPM & FULL THROTTLE
 BEFORE BRAKE RELEASE
 Runway: PAVED, LEVEL & DRY

WEIGHT POUNDS	ROTATE SPEED KIAS	OBSTACLE SPEED KIAS
3800	70	82
3400	66	77
3000	62	72
2600	57	67

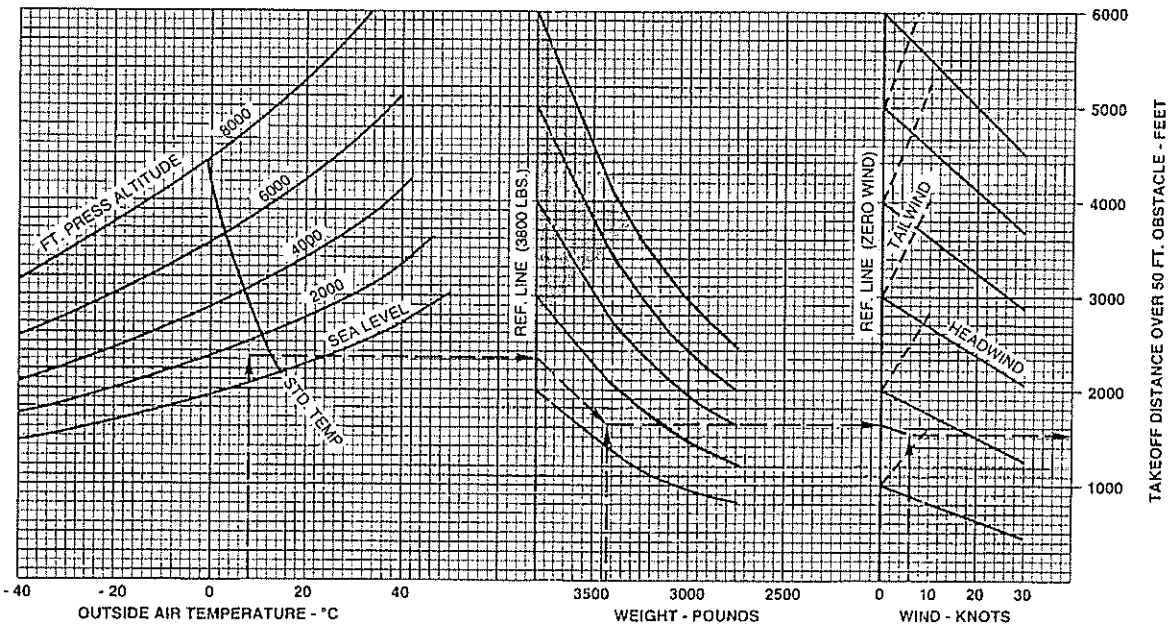
CAUTION

BEST ONE ENGINE INOPER-
 ATIVE RATE OF CLIMB IS
 LESS THAN 50 FPM IF T.O.
 WT. IS IN THE SHADED AREA.

EXAMPLE:

O.A.T.: 8°C
 Airport Pressure Altitude: 1250 FT
 Weight: 3430 LBS
 Wind Component: 6 KT HEADWIND
 Takeoff Distance
 Over 50 FT Obstacle: 1520 FT

TAKEOFF DISTANCE OVER 50 FT. OBSTACLE - SHORT FIELD EFFORT
 Figure 5-13



CLIMB PERFORMANCE - BOTH ENGINES OPERATING - GEAR DOWN

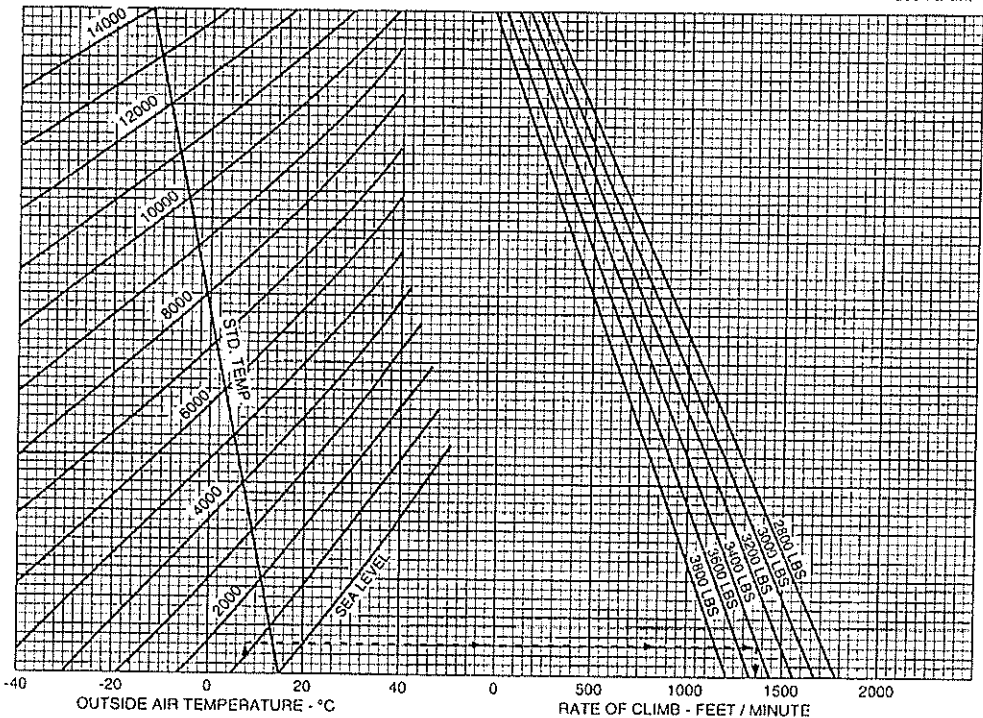
ASSOCIATED CONDITIONS:

Wing Flaps: 0°
 Cowl Flaps: OPEN
 Landing Gear: DOWN
 Mixture: FULL RICH

Engines: BOTH OPERATING
 Power: 2700 RPM,
 FULL THROTTLE
 Airspeed: 78 KIAS

EXAMPLE:

Outside Air Temp. 8°C
 Press. Alt.: 1250 FT.
 Weight: 3430 LBS
 Rate of Climb: 1360 F.P.M.



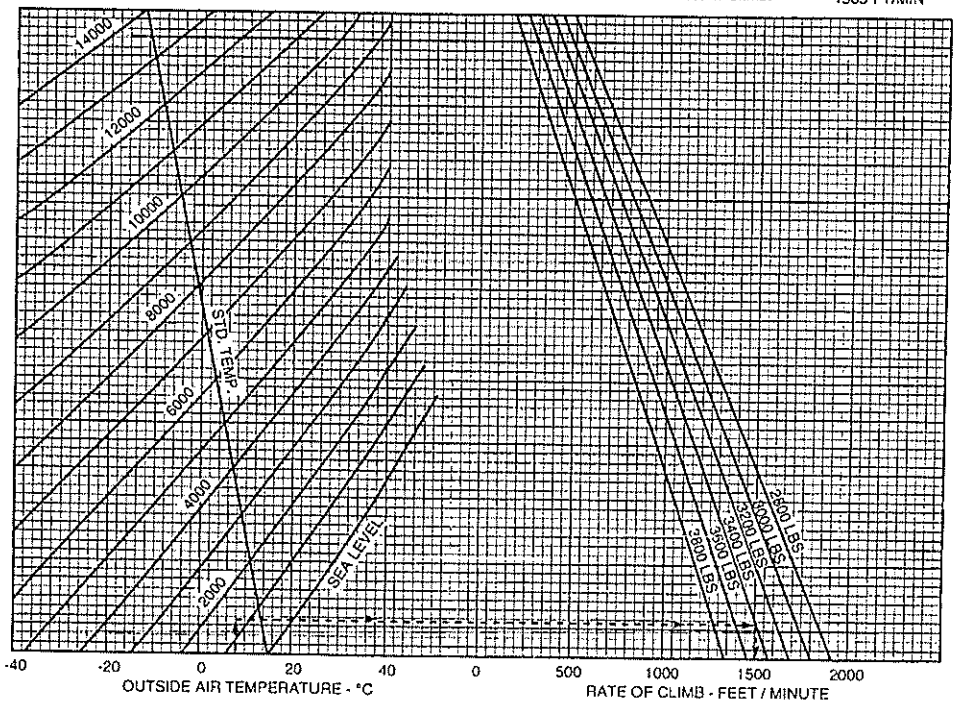
CLIMB PERFORMANCE - BOTH ENGINES OPERATING - GEAR UP

ASSOCIATED CONDITIONS:

Power FULL THROTTLE, 2700 RPM
Cowl Flaps OPEN
Mixture FULL RICH
Airspeed 88 KIAS
Wing Flaps 0°

Engines BOTH OPERATING
Landing Gear UP

EXAMPLE:
Press. Alt.: 1250 FT.
Outside Air Temp. 8°C
Weight: 3430 LBS
Rate of Climb: 1505 FT/MIN



CLIMB PERFORMANCE - BOTH ENGINES OPERATING - GEAR UP

Figure 5-17

ISSUED: JULY 12, 1995
REVISED: JULY 23, 2002

REPORT: VB-1616
5-23

CLIMB PERFORMANCE - ONE ENGINE OPERATING - GEAR UP

ASSOCIATED CONDITIONS:

Wing Flaps: 0°
Cowl Flaps
(Operating Engine): OPEN
(Inoperative Engine): CLOSED
Landing Gear: UP

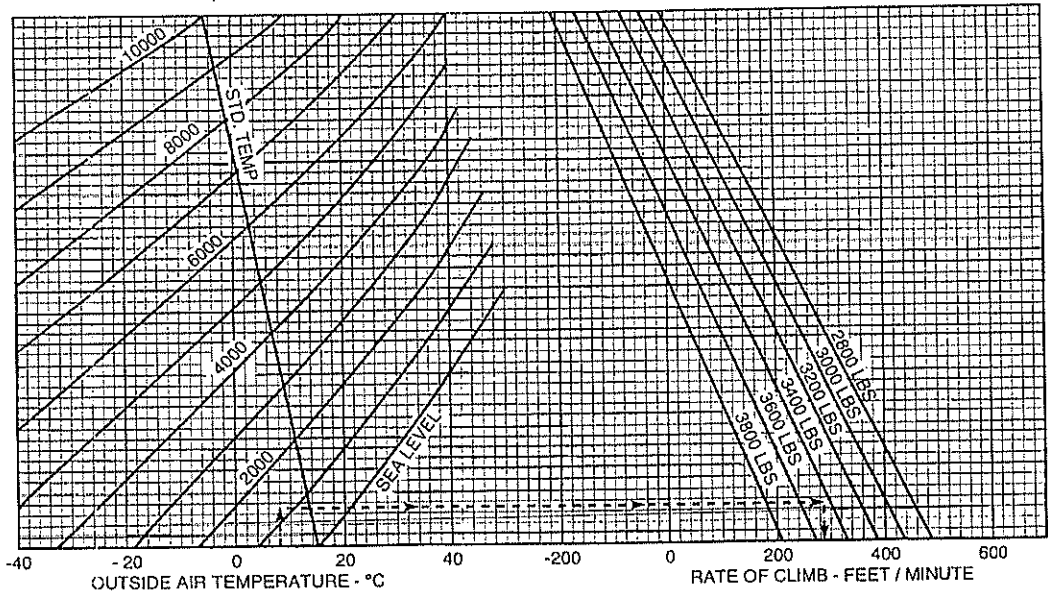
Mixture: FULL RICH
Prop (Inoperative Engine): FEATHERED
Power: 2700 RPM.
FULL THROTTLE
68 KIAS
Airspeed:

NOTE

2° TO 3° BANK TOWARD
OPERATING ENGINE

EXAMPLE:

Outside Air Temp.: 8°C
Press Alt.: 1250 FT.
Weight: 3430
One Engine
Inoperative Climb: 285 F.P.M.



CLIMB PERFORMANCE - ONE ENGINE OPERATING - GEAR UP

Figure 5-19

LANDING DISTANCE OVER 50 FT OBSTACLE — SHORT FIELD EFFORT

ASSOCIATED CONDITIONS:

Wing Flaps: 40°
 Power: OFF
 Cowf Flaps: AS REQUIRED
 Runway: PAVED LEVEL & DRY
 Touchdown: FULL STALL
 Approach Speed: AS SCHEDULED

EXAMPLE:

O.A.T.: 8°
 Press. Alt.: 680 FT
 Weight: 3107 LBS
 Wind Component: 5 KT HEADWIND
 Approach Speed: 68 KIAS
 Total Landing Distance: 1238 FT

LANDING DISTANCE OVER 50 FT. OBSTACLE - SHORT FIELD EFFORT
 Figure 5-33

