

N6079W

1964 Piper Pa 28-140

Weight & Balance



MSN: 28-20092

Prepared by the worldwide aviation specialists at RidgeAir, Inc.

DATE 12-3-24 N6079W—TACH 11.9—TOTAL 2420.71

WEIGH AIRCRAFT AND CONVERT MAX WEIGHT
FROM 1950 TO 2150 AND INSTALL REAR JUMP SEATS
THIS IS APPROVED UNDER NOTE #6 OF TC
DATA SHEET #2A13 DATED 10-20-04, REV.47
NEW EMPTY WEIGHT IS 1340. NEW USEFUL IS 810.
THE NEW MOMENT IS 116275. IT IS THE RESPONSIBILITY
OF THE PIC TO LOAD THE AIRCRAFT WITH
IN THE CG LIMITS. NORMAL CATEGORY RANGE IS
PLUS 88.4 TO PLUS 95.9 AT 2150 POUNDS.
STATIC RPM MIN. 2275 RPM MAX 2425 RPM.

SIG

James E. Madson

CERT

AP449503711
with - IA

SECTION I

SPECIFICATION FEATURES

N 6079W

PERFORMANCE

28-20092

The gross weight of 1950 pounds in the following performance charts applies to Serial Nos. 28-20000* to 28-20939, unless the airplane has been modified to 2150 pounds gross weight. All airplanes from Serial Nos. 28-20940 and up have been licensed from the factory at 2150 pounds gross weight.

Performance figures are for standard airplanes flown at gross weight under standard conditions at sea level, or stated altitude. Any deviation from Standard equipment may result in changes in performance.

	GROSS WEIGHTS	1950	2150
Take-off Run (ft.) (flaps up)		725	800
Take-off Distance Over 50 ft. Obstacle (ft.) (flaps up)		1500	1700
Best Rate of Climb Speed (mph)		85	85
Rate of Climb (ft. per min.)		820	660
Service Ceiling (ft.)		15,000	14,300
Absolute Ceiling		17,000	16,800
Top Speed (mph)		141 (144*)	139 (142*)
Cruising Speed (75% power, sea level) (mph)		120 (123*)	121 (124*)
Optimum Cruising Speed (75% power, 7000 ft., mph)		130 (133*)	130 (133*)
Instructional Power Cruise Speed (50% power, sea level)		100 (102*)	100 (102*)
Fuel Consumption (gal. per hr. 75%)		8.4	9
Fuel Consumption (gal. per hr. 50%)		5.3	5.5
Cruising Range (75% power, sea level, mi.)	515, 4 hrs. (720, 6 hrs.**)	490, 4 hrs. (680, 6 hrs.**)	
Cruising Range (75% power, 7000 ft., mi.)	560 (780**)	535 (725**)	
Optimum Cruising Range (55% power, 10,000 ft.)	600 (840**)	570 (790**)	

*When Fenders Installed

**With 50 gal. Reserve Fuel

SECTION I

THE PIPER CHEROKEE

SPECIFICATION FEATURES: (cont)

PERFORMANCE

	GROSS WEIGHTS	1950	2150
Instructional Power Cruising Range (50% power, sea level)	640, 6.5 hrs. (895, 9 hrs.**)	650, 6.5 hrs. (910, 9 hrs.**)	
Stalling Speed (flaps down, mph)		52	54
Landing Roll (flaps down, ft.)		485	535

WEIGHTS

Gross Weight (lbs.)	1950	2150
Empty Weight (Standard) (lbs.)	1180	1201
USEFUL LOAD (Standard) (lbs.)	770	949
Empty Weight (AutoFlight) (lbs.)	1220	1241
USEFUL LOAD (AutoFlight) (lbs.)	730	909

POWER PLANT

Engine - Lycoming	O-320-E2A	O-320-E2A
Rated Horsepower and Speed (rpm)	140 at 2450	150 at 2700
Bore (inches)	5.125	5.125
Stroke (inches)	3.875	3.875
Displacement (cubic inches)	319.8	319.8
Compression Ratio	7:1	7:1
Dry Weight (pounds)	272	272
Oil Sump Capacity (qts.)	8	8
Propeller (Sensenich)	M74DM	M74DM

**With 50 gal. Reserve Fuel

THE PIPER CHEROKEE

SECTION I

SPECIFICATION FEATURES: (cont)

	GROSS WEIGHTS	1950	2150
FUEL AND OIL			
Fuel Capacity (gal.) Standard		36	36
Fuel Capacity (gal.) Reserve		50	50
Oil Capacity (qts.)		8	8
Fuel Aviation Grade (Octane)		80/87	80/87

BAGGAGE

Maximum Baggage (lbs.)	100	200***
Baggage Space (cubic ft.)	22	22

DIMENSIONS

Wing Span (ft.)	30	30
Wing Area (sq. ft.)	160	160
Wing Loading (lbs. per sq. ft.)	12.2	13.4
Length (ft.)	23.3	23.3
Height (ft.)	7.3	7.3
Power Loading (lbs. per HP)	13.9	14.3

LANDING GEAR

Wheel Base (ft.)		6.2	6.2
Wheel Tread (ft.)		10.0	10.0
Tire Pressure (lbs.)	Nose	24	24
	Main	24	24

***Except when family seat and safety belts are installed, 340 lbs. is permitted.