

Summary Aircraft Data 1969 PA28-200R N827RA

Empty Weight (lbs)	Max T/O Weight (lbs)	Useful Load (lbs)	Fuel Capacity (gals)	Useable Fuel (gals)
1565.33	2650.00	1034.67	50	48

Electrical System			Engine	Oil
Alternator	14 V	60 amp	200 HP	Min level = 5 qts
Battery	12 V	25 amp hr	IO-360	Max level = 8 qts

Normal Category Load Factor: +3.8 G to NO NEGATIVE Gs

V – Speeds (MPH):

$V_{NE} = 214$

$V_{NO} = 170$

$V_{FE} = 125$ for 10, 25, 40 deg

$V_{LE} = 150$

$V_{LO} = 125$

$V_{EMERLE} = <100$

V_A (max T/O weight) = 131

$V_Y = 95$ Gear down, 100 Up

$V_X = 85$ Gear down, 96 Up

$V_G = 105$

$V_R = 70$ normal T/O -- 64MPH Short field T/O

$V_{SO} = 64$

$V_{S1} = 71$

Standard Traffic Pattern

	Carb Heat	IN MP	RPM	MPH	Flaps & Gear	Trim
Downwind	As Req.	20"	2400	125	0 deg.	As Req.
Abeam Touchdown Pt.	As Req.	18"	2400	105	10 deg. GEAR DOWN	As Req.
Base	As Req.	15"	2400	90 - 95	25 deg.	As Req.
Final	As Req.	10" – 12"	1200 Idle	85 - 90	40 deg. final	As Req.

Maximum Crosswind Component = 20 MPH @ 90 deg to runway.

GO-AROUND: Power 25" MP, Prop Full, Flaps to 25 deg, Gear UP, pitch for normal climb, positive rate of climb established, flaps up incrementally until reaching traffic pattern altitude.

Maximum Flaps for Forward Slip = 25 deg

Landing Gear Operations & Details

- Approach speeds below 85 MPH, the landing gear will come down automatically if the gear is not extended.
- Take-offs below 85 MPH, the landing gear will not come up even if the gear selector switch is up. This is due to there not being enough airspeed on the RAM pressure switch for the landing gear system.

Abnormal Gear Procedures

- Verify Panel light is off (panel lights dim the gear indicators making you think the gear are not down and locked.)
- Verify landing gear circuit breakers are in. There are 2 → Gear motor & gear lights
- Verify gear indicator lights are not out. Try switching the bulbs.
- If all these procedures fail switch to < 100 MPH, place the gear selector switch down, put the manual gear extension lever down (below the trim wheel).
- Fish tail the airplane slightly by doing a gentle yawing motion.
- Verify 3 green lights and red gear unsafe light out.
- If no lights fly by the tower and ask for verification. Complete the abnormal procedures checklist and do gear up landing checklist.

Commercial Maneuvers Speeds

Maneuver	Entry Speed MPH
Chandelle	131
Lazy Eight	131
Steep Turn (45 – 50 deg bank)	131

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Power Setting Table - Lycoming Model IO-360-C Series, 200 HP Engine

Press. Alt Feet	Std. Alt Temp ° F	110 HP - 55% Rated RPM AND MAN. PRESS.		130 HP - 65% Rated RPM AND MAN. PRESS.		150 HP - 75% Rated RPM AND MAN. PRESS.		Press. Alt Feet
		2100	2400	2100	2400	2100	2400	
SL	59	22.9	20.4	25.9	22.9	25.5	22.5	SL
1,000	55	22.7	20.2	25.6	22.7	25.2	22.2	1,000
2,000	52	22.4	20.0	25.4	22.5	25.0	22.0	2,000
3,000	48	22.2	19.8	25.1	22.2	24.7	21.7	3,000
4,000	45	21.9	19.5	24.8	22.0	24.4	21.4	4,000
5,000	41	21.7	19.3	FT	21.7	FT	21.1	5,000
6,000	38	21.4	19.1	---	21.5	---	20.8	6,000
7,000	34	21.2	18.9	---	21.3	---	20.6	7,000
8,000	31	21.0	18.7	---	21.0	---	20.3	8,000
9,000	27	FT	18.5	---	FT	---	20.1	9,000
10,000	23	---	18.3	---	---	---	19.8	10,000
11,000	19	---	18.1	---	---	---	19.5	11,000
12,000	16	---	17.8	---	---	---	19.2	12,000
13,000	12	---	17.6	---	---	---	18.9	13,000
14,000	9	---	FT	---	---	---	18.6	14,000

To maintain constant power, correct manifold pressure approximately 0.16" Hg for each 10°F variation in inlet air temperature from standard altitude temperature. Add manifold pressure for air temperatures above standard, subtract for temperatures below standard.

