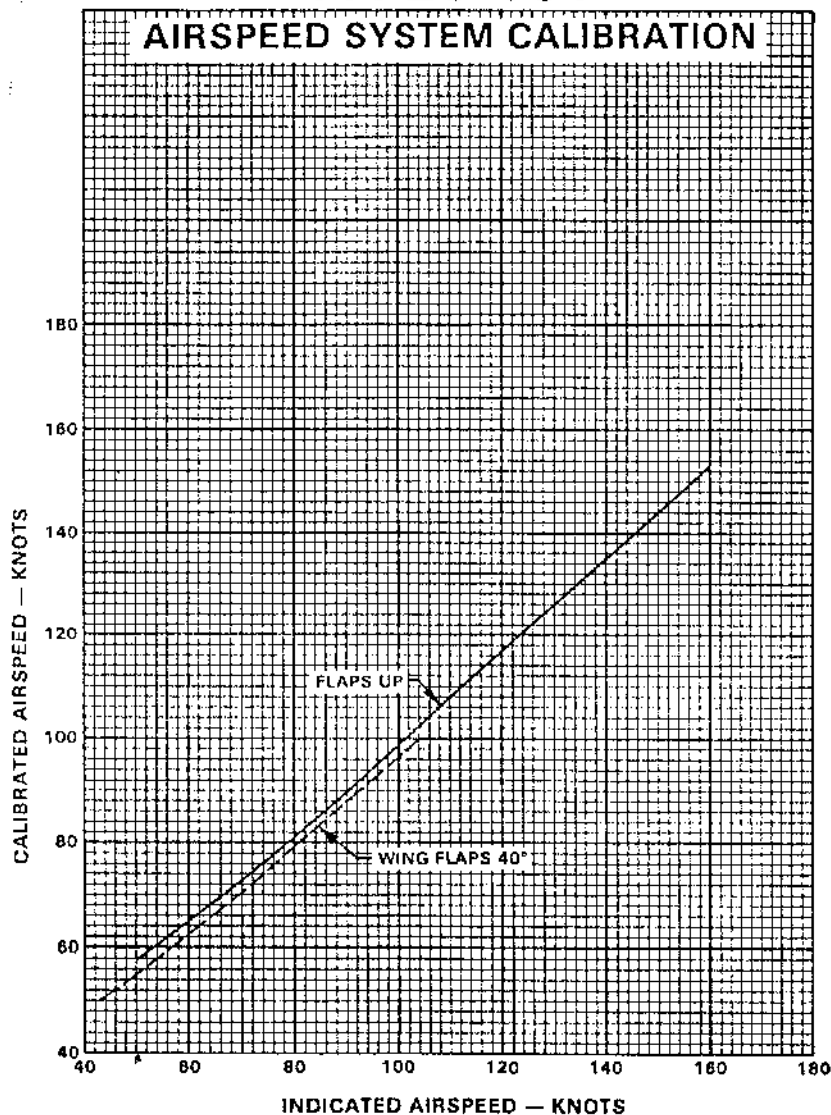
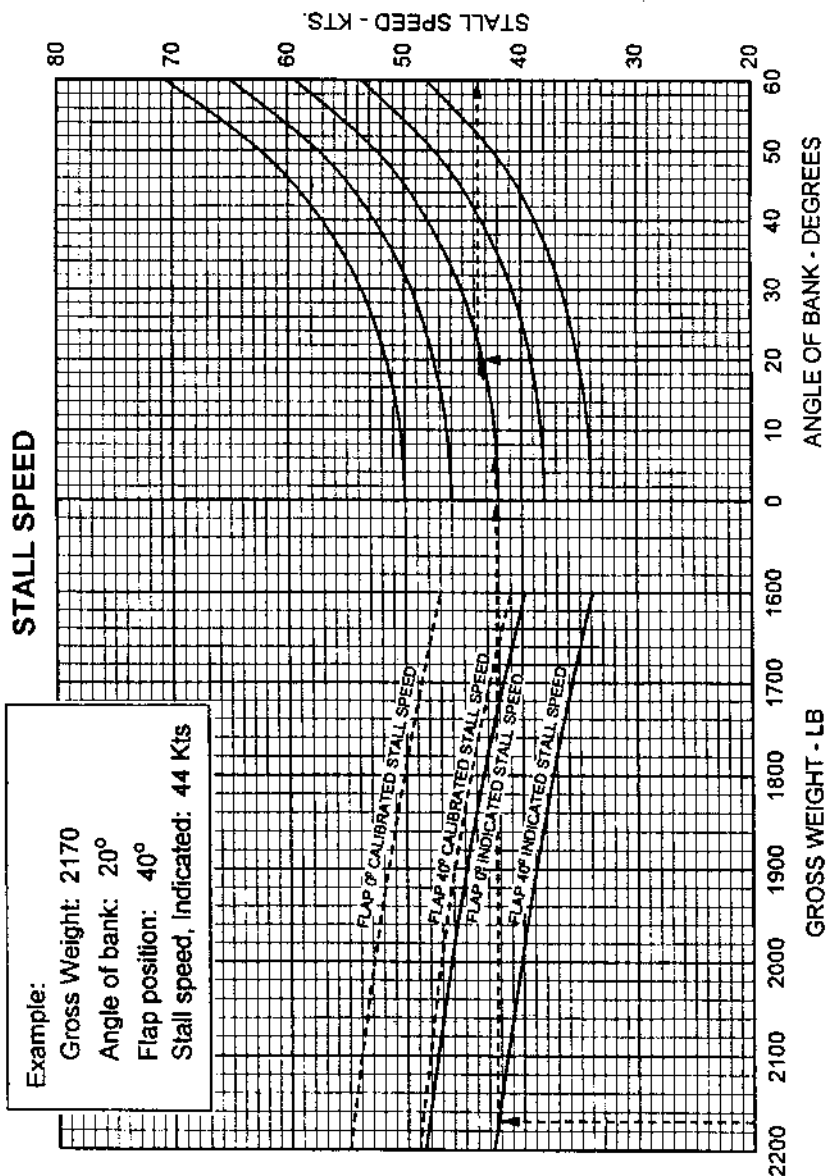


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AIRSPEED SYSTEM CALIBRATION

Figure 5-3



STALL SPEED

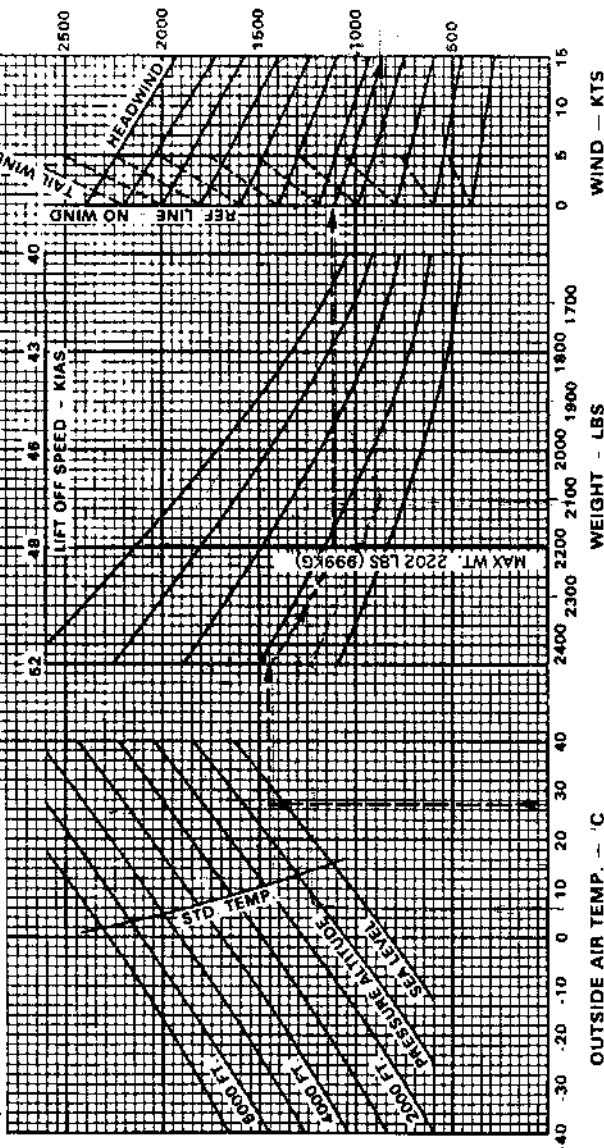
Figure 5-5

PA-28-161

0° FLAPS TAKEOFF GROUND ROLL

ASSOCIATED CONDITIONS:
PAVED, LEVEL, DRY RUNWAY
FULL POWER BEFORE BRAKE RELEASE
FLAPS 0°

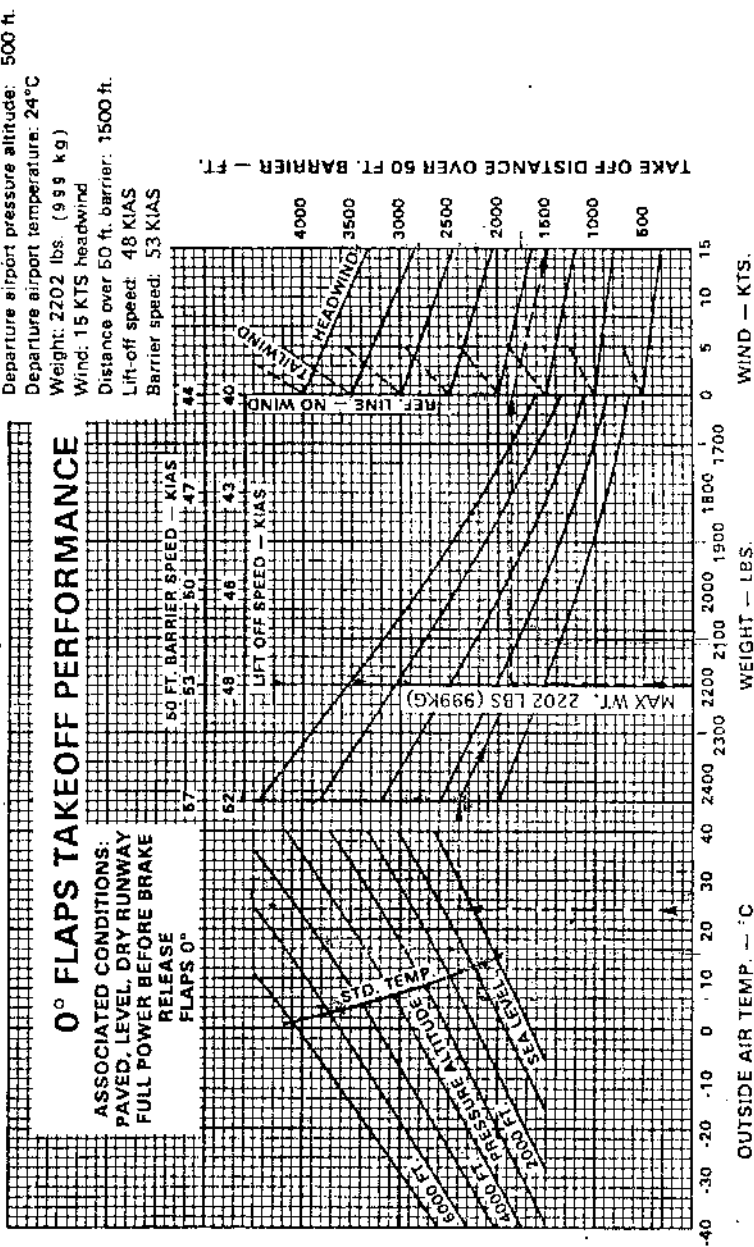
Example:
Departure airport pressure altitude: 500 ft.
Departure airport temperature: 27°C
Weight: 2202 lbs. (999 kg)
Wind: 15 KTS headwind
Ground roll: 875 ft.
Lift-off speed: 48 KIAS



0° FLAPS TAKEOFF GROUND ROLL

Figure 5-7

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0° FLAPS TAKEOFF PERFORMANCE

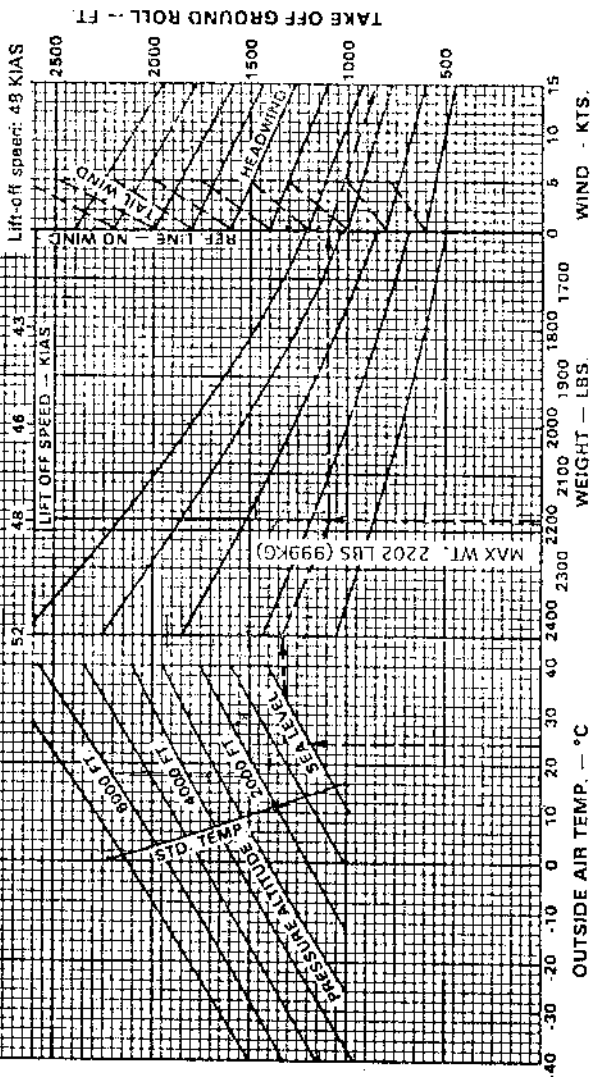
Figure 5-9

PA-28-161

25° FLAPS TAKEOFF GROUND ROLL

ASSOCIATED CONDITIONS:
PAVED, LEVEL, DRY RUNWAY
FULL POWER BEFORE BRAKE RELEASE
FLAPS 25°

Example:
Departure airport pressure altitude: 500 ft.
Departure airport temperature: 24°C
Weight: 2202 lbs. (999 KG)
Wind: 15 KTS headwind
Ground roll: 850 ft.
Lift-off speed: 48 KIAS



25° FLAPS TAKEOFF GROUND ROLL

Figure 5-11

ENGINE PERFORMANCE

POWER vs RPM

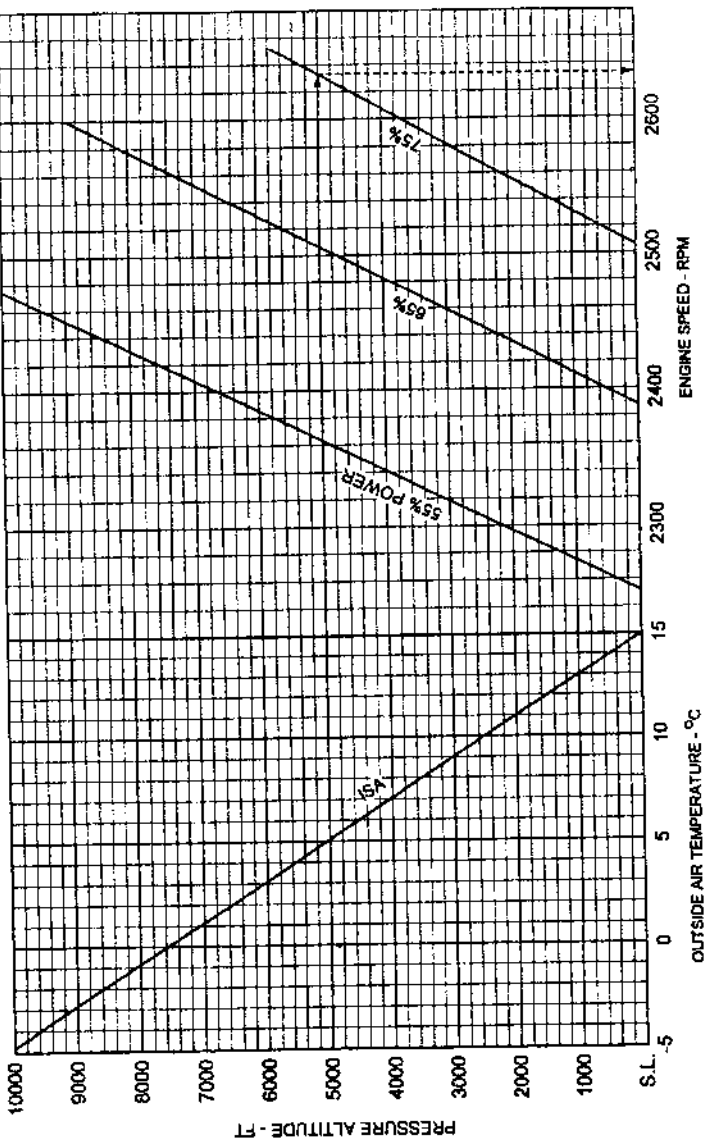
OAT = ISA

PROPELLER: Sensenich 74DM6-0-60

Example:

Pressure Altitude: 5000 ft
 Power: 75%
 Engine Speed: 2630 RPM

Powers are percent of 160 BHP
 RPM applicable to both best
 power & best economy mixture



ENGINE PERFORMANCE

Figure 5-15

MAXIMUM RATE OF CLIMB
2202 LBS (999 kg) GROSS WEIGHT

ASSOCIATED CONDITIONSEXAMPLE

POWER	FULL THROTTLE	PRESSURE ALTITUDE	5000 FT
MIXTURE	FULL RICH	OAT	16 ° C
FLAPS	UP	RATE OF CLIMB	444 FPM
AIRSPEED	79 KIAS		

PRESSURE ALTITUDE FT.	OAT			
	-20 ° C	0 ° C	20 ° C	40 ° C
SL	794	747	704	664
1000	740	693	650	610
2000	685	639	596	557
3000	631	585	543	504
4000	577	531	489	451
5000	523	477	436	398
6000	468	423	382	345
7000	414	370	329	292
8000	360	316	276	238
9000	306	262	222	185
10000	252	209	169	133
11000	198	155	116	80
12000	144	101	62	27
13000	90	48	9	- 26

CLIMB PERFORMANCE

Figure 5-17

FUEL, TIME AND DISTANCE TO CLIMB

ASSOCIATED CONDITIONS

WEIGHT 2202 lbs (999 kg)
 POWER FULL THROTTLE
 MIXTURE FULL RICH
 FLAPS UP
 AIRSPEED 79 KIAS

EXAMPLE

AIRPORT
 PRESSURE ALTITUDE 500 FT
 OAT 24 ° C (ISA + 10 ° C)
 CRUISE
 ALTITUDE 5000 FT
 OAT 15 ° C (ISA + 10 ° C)
 TIME TO CLIMB (9-1) 8 MIN.
 FUEL TO CLIMB (2-0) 2 GAL.
 DISTANCE TO CLIMB (13-1) 12 N.M.

- NOTES: 1. DISTANCES SHOWN ARE BASED ON ZERO WIND.
 2. ADD 1 GALLON OF FUEL FOR ENGINE START, TAXI, AND TAKEOFF.

PRESSURE ALTITUDE FT.	OAT								
	ISA - 10 ° C			ISA			ISA + 10 ° C		
	FROM SEA LEVEL								
	TIME MIN	FUEL GAL	DIST NM	TIME MIN	FUEL GAL	DIST NM	TIME MIN	FUEL GAL	DIST NM
SL	0	0	0	0	0	0	0	0	0
1000	1	0	2	1	0	2	1	0	2
2000	3	1	4	3	1	4	3	1	4
3000	5	1	6	5	1	6	5	1	7
4000	6	1	9	7	1	9	7	1	10
5000	8	2	11	9	2	12	9	2	13
6000	10	2	14	11	2	15	11	2	16
7000	13	3	18	13	3	19	14	3	20
8000	16	3	22	16	3	23	17	3	25
9000	19	4	27	20	4	29	21	4	31
10000	23	5	32	24	5	35	25	5	38
11000	27	5	39	29	5	43	31	6	47
12000	33	6	49	36	6	54	39	7	60

FUEL, TIME AND DISTANCE TO CLIMB

Figure 5-19