

THERE ARE MORE CESSNAS FLYING THAN ANY OTHER MAKE

1965

CESSNA



MODEL
182
AND
SKYLANE

OWNER'S
MANUAL

WORLD'S LARGEST PRODUCER OF GENERAL AVIATION AIRCRAFT SINCE 1956

STALL SPEED, POWER OFF			
<i>Gross Weight</i> 2800 LBS.	ANGLE OF BANK		
	 0°	 30°	 60°
CONFIGURATION			
FLAPS UP	64	69	91
FLAPS 20°	57	61	81
FLAPS 40°	55	59	78
SPEEDS ARE MPH, CAS			

Figure 5-2.

TAKE-OFF DATA

TAKE-OFF DISTANCE WITH 20° FLAPS FROM HARD SURFACE RUNWAY.

GROSS WEIGHT LBS.	IAS @ 50' MPH	HEAD WIND MPH	AT SEA LEVEL & 59°F.			AT 2500 FT. & 50°F.			AT 5000 FT. & 41°F.			AT 7500 FT. & 32°F.		
			IAS	RATE OF CLIMB FT/MIN	GAL. OF FUEL USED	IAS	RATE OF CLIMB FT/MIN	GAL. OF FUEL USED	IAS	RATE OF CLIMB FT/MIN	GAL. OF FUEL USED	IAS	RATE OF CLIMB FT/MIN	GAL. OF FUEL USED
2000	52	0	295	655		350	745		415	855		500	1005	
		15	160	425		195	490		235	570		290	680	
		30	65	235		80	280		105	335		135	405	
2400	57	0	440	895		525	1035		630	1210		765	1460	
		15	255	600		310	705		380	835		470	1020	
		30	115	355		150	425		190	515		245	645	
2800	61	0	625	1205		745	1420		895	1695		1095	2090	
		15	380	830		460	990		565	1200		700	1505	
		30	190	515		240	630		305	780		390	1000	

Note: Increase distances 10% for each 25°F above standard temperature for particular altitude.

MAXIMUM RATE-OF-CLIMB DATA

GROSS WEIGHT LBS.	AT SEA LEVEL & 59°F.			AT 5000 FT. & 41°F.			AT 10000 FT. & 23°F.			AT 15000 FT. & 5°F.			AT 20000 FT. & -12°F.		
	IAS MPH	RATE OF CLIMB FT/MIN	GAL. OF FUEL USED	IAS MPH	RATE OF CLIMB FT/MIN	From SL FUEL USED	IAS MPH	RATE OF CLIMB FT/MIN	From SL FUEL USED	IAS MPH	RATE OF CLIMB FT/MIN	From SL FUEL USED	IAS MPH	RATE OF CLIMB FT/MIN	From SL FUEL USED
2000	84	1710	1.5	82	1350	2.7	79	995	4.1	76	640	5.9	74	280	9.2
2400	86	1295	1.5	84	1005	3.1	82	720	5.0	79	435	7.6	77	150	12.9
2800	88	980	1.5	86	745	3.7	84	510	6.3	82	280	10.2	80	50	20.5

Note: Flaps up, full throttle and 2600 RPM. Mixture leaned for smooth operation above 5000 ft. Fuel used includes warm-up and take-off allowance.

Figure 5-3.

plane to start rolling before high RPM is developed, and the gravel will be blown back of the propeller rather than pulled into it.

Most engine wear occurs from improper operation before the engine is up to normal operating temperatures, and operating at high powers and RPM's. For this reason the use of maximum power for take-off should be limited to that absolutely necessary for safety. Whenever possible, reduce take-off power to normal climb power.

Normal take-offs are accomplished with wing flaps up, cowl flaps open, full throttle, and 2600 RPM. Reduce power to 23 inches of manifold pressure and 2450 RPM as soon as practical to minimize engine wear.

Using 20° wing flaps reduces the ground run and total distance over the obstacle by approximately 20 per cent. Soft field take-offs are performed with 20° flaps by lifting the airplane off the ground as soon as practical in a slightly tail-low attitude. However, the airplane should be leveled off immediately to accelerate to a safe climb speed.

If 20° wing flaps are used for take-off, they should be left down until all obstacles are cleared. To clear an obstacle with wing flaps 20 degrees, the best angle-of-climb speed (60 MPH, IAS) should be used. If no obstructions are ahead, a best "flaps up" rate-of-climb speed (90 MPH, IAS) would be most efficient. These speeds vary slightly with altitude, but they are close enough for average field elevations.

Flap deflections of 30° to 40° are not recommended at any time for take-off.

Take-offs into strong crosswinds normally are performed with the minimum flap setting necessary for the field length, to minimize the drift angle immediately after take-off. The airplane is accelerated to a speed slightly higher than normal, then pulled off abruptly to prevent possible settling back to the runway while drifting. When clear of the ground, make a coordinated turn into the wind to correct for drift.

CLIMB.

A cruising climb at 23 inches of manifold pressure, 2450 RPM (approximately 75% power) and 100 to 120 MPH is recommended to save time and fuel for the overall trip. In addition, this type of climb provides better engine cooling, less engine wear, and more passenger comfort due to

lower noise level.

If it is necessary to climb rapidly to clear mountains or reach favorable winds at high altitudes, the best rate-of-climb speed should be used with maximum power. This speed is 88 MPH at sea level, decreasing 2 MPH for each 5000 feet above sea level.

If an obstruction ahead requires a steep climb angle, the airplane should be flown at the best angle of climb with flaps up and maximum power. This speed is 70 MPH.

In a balked landing (go-around) climb, the wing flap setting should be reduced to 20° immediately after full power is applied. After all obstacles are cleared and a safe altitude and airspeed are obtained, the wing flaps should be retracted.

CRUISE.

Normal cruising is done between 65% and 75% power. The power settings required to obtain these powers at various altitudes and outside air temperatures can be determined by using your Cessna Power Computer or the OPERATIONAL DATA, Section V.

OPTIMUM CRUISE PERFORMANCE

%BHP	ALTITUDE	TRUE AIRSPEED	RANGE (Std. Tanks)
75	6500	162	695
70	8000	160	735
65	10,000	158	785

Figure 2-3.