

N2732L – Cessna 172



Aircraft Fact Book

CESSNA N2732L

THIS IS NOT AN OFFICIAL DOCUMENT. DO NOT RELY ON THIS INFORMATION FOR AIRCRAFT OPERATIONS. ALWAYS USE THE OFFICIAL PILOT OPERATING HANDBOOK OR AIRCRAFT MANUAL.

PREFLIGHT INSPECTION

CABIN

Certificates/Documents.....IN AIRCRAFT
Parking Brake.....SET
Control Wheel Lock.....REMOVE
Ignition Switch.....OFF
Radio Master.....OFF
Master Switch.....ON
Fuel Quantity Indicators.....CHECK QUANTITY
Flaps.....DOWN FOR INSPECTION
*** For Night Operations: Lights.....CHECK
Master Switch.....OFF
Fuel Selector Valve.....BOTH
Baggage Door.....CHECK

TAIL SECTION

Tail Tie-Down.....DISCONNECT
Control Surfaces....CHECK FREEDOM & SECURE

RIGHT WING

Aileron.....CHECK FREEDOM & SECURE
Wing Tie Down.....DISCONNECT
Main Wheel Tire.....CHECK(Inflation/Condition)
Fuel Tank Sump Quick Drain Valve.....DRAIN
Fuel Quantity.....CHECK VISUALLY
Fuel Filler Cap.....SECURE

NOSE

Engine Oil Dipstick.....(6/8 Qts)CHECK/SECURE
Fuel Strainer Drain Knob.....PULL OUT(4 Sec)
Propeller & Spinner.....CHECK
Landing Light(s).....CHECK
Carburetor Air Filter.....CHECK
Nose Wheel Strut & Tire.....CHECK
Wheel Chocks.....REMOVE
Windshield.....CHECK CLEAN
Static Source Opening.....CHECK

LEFT WING

Main Wheel Tire.....CHECK(Inflation/Condition)
Fuel Tank Sump Quick Drain Valve.....DRAIN
Fuel Quantity.....CHECK VISUALLY
Fuel Filler Cap.....SECURE
Pitot Tube/Cover.....CHECK/REMOVE
Fuel Tank Vent Opening.....CHECK
Stall Warning Opening.....CHECK
Wing Tie Down.....REMOVE
Aileron.....CHECK FREEDOM & SECURE

BEFORE STARTING ENGINE

Preflight Inspection.....COMPLETE
Passenger Briefing.....COMPLETE
Seats, Belts, Shoulder Harness...ADJUST & LOCK
Fuel Selector Valve.....BOTH
Brakes.....SET
Circuit Breakers.....CHECK IN

STARTING ENGINE

Avionics/Radios.....OFF
Mixture.....RICH
Carburetor Heat.....COLD (IN)
Prime.....AS REQUIRED (2-6)

Throttle.....OPEN 1/8"
Master Switch.....ON
Propeller Area.....CLEAR
Ignition Switch.....START
Oil Pressure.....CHECK
Throttle.....WARM UP @ 1000RPM
Mixture.....Lean for smooth running
Avionics/Radios.....ON

BEFORE TAXI

Lights & Flashing Beacon.....AS REQUIRED
Radios.....SET
DG.....SET
Flaps.....UP
Brakes.....TEST

BEFORE TAKEOFF

Parking Brake.....SET
Seats, Belts, Harnesses.....CHECK SECURE
Doors and Windows.....CLOSE & LOCK
Flight Controls.....FREE & CORRECT
Fuel Selector Valve.....BOTH
Fuel Quantity.....CHECK
Mixture.....RICH
Throttle.....1700 RPM
Magnetos...CHECK (125 max +- 75 difference)
Carburetor Heat.....CHECK for RPM Drop
Engine Instruments & Ammeter.....CHECK
Suction Gage.....CHECK
Throttle.....IDLE
Throttle Friction Lock.....ADJUST
Elevator Trim.....SET
Flight Instruments.....CHECK & SET
Radios.....SET
Transponder.....ALTITUDE
Wing Flaps.....SET
Lights.....AS DESIRED
Brakes.....RELEASE

TAKEOFF

NORMAL

Wing Flaps.....UP
Carburetor Heat.....COLD (IN)
Elevator Trim.....SET
Mixture.....RICH
Throttle.....FULL OPEN
Elevator Control.....LIFT NOSE WHEEL (60 MPH)
Climb Speed.....80 MPH

SHORT FIELD TAKEOFF

Wing Flaps.....0 degrees
Soft field.....10 degrees
Carburetor Heat.....COLD (IN)
Elevator Trim.....SET
Brakes.....APPLY
Mixture.....RICH
Throttle.....FULL OPEN
Brakes.....RELEASE
Elevator Control.....SLIGHTLY TAIL LOW
Climb Speed.....66 MPH

ENROUTE CLIMB

Airspeed.....80 – 90 MPH
Throttle.....FULL OPEN
Mixture.....RICH

CRUISE

Power.....2200 – 2700 RPM
Elevator TrimADJUST
Mixture.....LEAN

DESCENT

Fuel Selector Valve.....BOTH
Power.....AS DESIRED
Mixture.....ADJUST
Carburetor Heat.....FULL HEAT (OUT) AS REQD

BEFORE LANDING

Seats, Belts, Harnesses.....SECURE
Fuel Selector Valve.....BOTH
Mixture.....RICH
Carburetor Heat.....FULL HEAT (OUT)

LANDING

NORMAL LANDING

Airspeed.....70 – 80 MPH (flaps up)
Wing Flaps.....AS DESIRED
Airspeed.....65 – 75 MPH (flaps down)
Touchdown.....MAINS FIRST
Landing Roll.....lower nose wheel gently
Braking.....MINIMUM REQUIRED

SHORT FIELD LANDING

Airspeed.....70 – 80 MPH (flaps up)
Wing Flaps.....FULL DOWN
Airspeed.....69 MPH (until flare)
Throttle.....REDUCE to Idle after clearing obstacle
Touchdown.....MAINS FIRST
Landing Roll.....Lower Nose Wheel Gently
Braking.....AS REQUIRED
Wing Flaps.....RETRACT

GO-AROUND

Throttle.....FULL OPEN
Carburetor Heat.....COLD (IN)
Wing Flaps.....20° (immediately)
Climb Speed.....60 MPH
Wing Flaps.....RETRACT after reaching safe alt.

AFTER LANDING

Carburetor Heat.....COLD (IN)
Wing Flaps.....UP
Transponder.....OFF
Lights.....As Required

SHUTDOWN

Brakes.....SET
Avionics Master.....OFF
Electrical Equipment & Lights.....OFF
Mixture.....IDLE CUTOFF
Ignition Switch.....OFF
Master.....OFF
Control Lock.....INSTALL
Hobbs.....RECORD
Aircraft.....SECURE
Flight Plan.....CLOSE

ENGINE FAILURE DURING TAKEOFF RUN

Throttle.....IDLE
Brakes.....APPLY
Wing Flaps.....RETRACT
Mixture.....IDLE CUT-OFF
Ignition Switch.....OFF
Master Switch.....OFF

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

Airspeed70 – 80 MPH
Mixture.....IDLE CUT-OFF
Fuel Selector Valve.....OFF
Ignition Switch.....OFF
Wing FlapsAs Required
Master Switch.....OFF

ENGINE FAILURE DURING FLIGHT

Airspeed.....80 MPH
Carb Heat.....ON
Fuel Selector Valve.....BOTH
Mixture.....RICH
Ignition Switch.....BOTH (or Start if prop stopped)
Primer.....IN & LOCKED
Transponder.....7700
Radio.....121.5 MAYDAY!

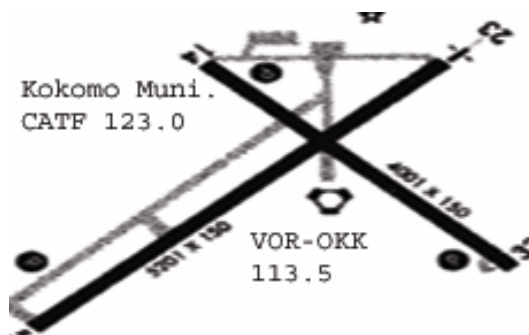
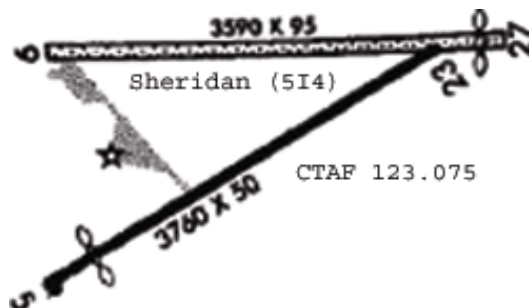
EMERGENCY LANDING W/O POWER

Airspeed70 - 80 MPH
Mixture.....CUT-OFF
Fuel Selector Valve.....OFF
Ignition Switch.....OFF
Wing FlapsAs required
Master Switch.....OFF
DoorsUNLATCH PRIOR TO TOUCHDOWN
Touchdown.....Slightly Tail Low (min. speed)
Brakes.....APPLY HEAVILY

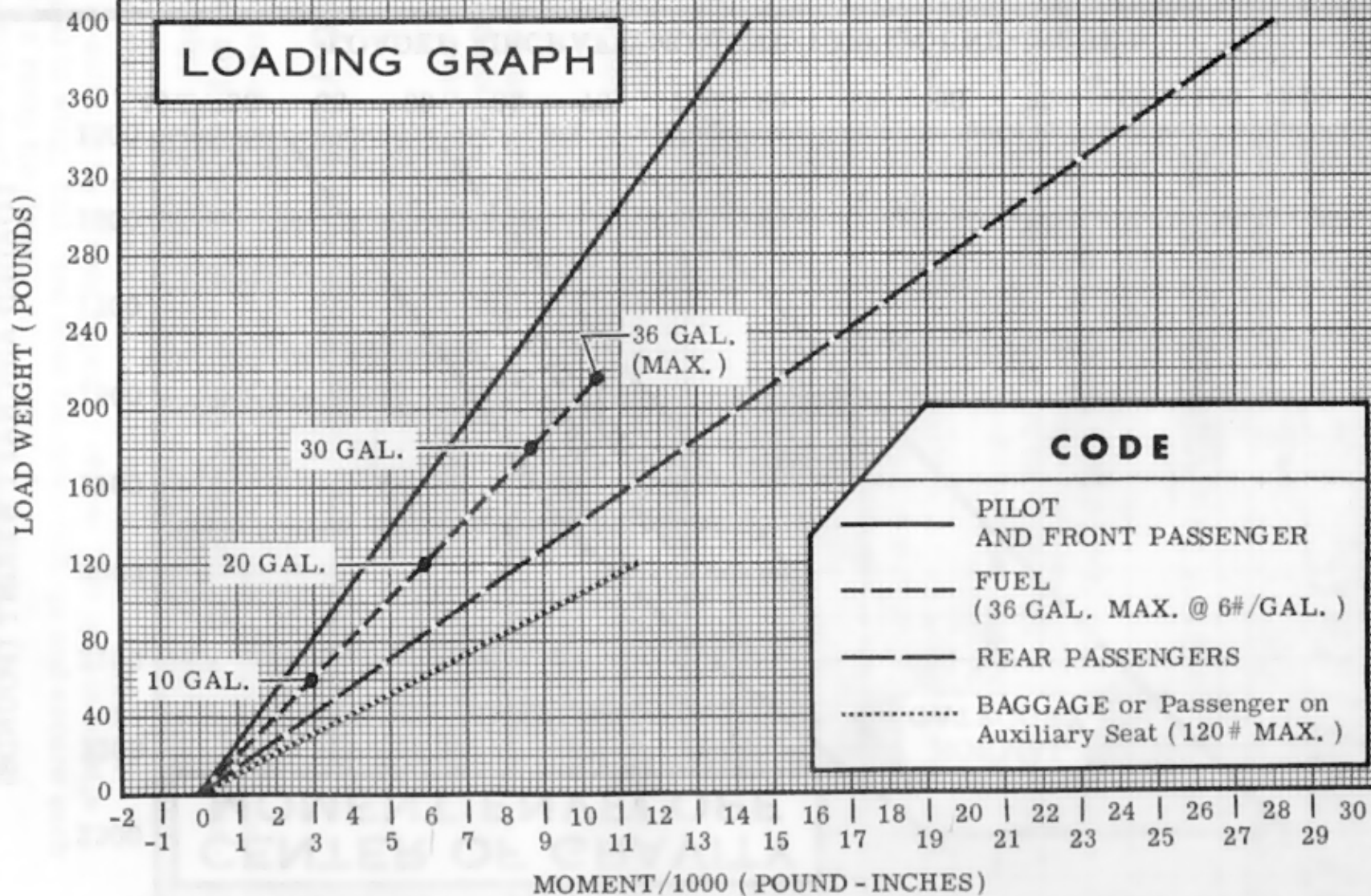
Max Weight	2300 lbs	Useful Load	884lbs
Useful Load w/full fuel	650 lbs	Max Baggage	120 lbs
Oil Capacity 8 qts	Fuel Capacity 39 gal	Usable Fuel	36 gal

Vso	49 MPH	Vfe	100 MPH	Downwind	80
Vs1	57 MPH	Va	122 MPH	Base	75
Vx	66 MPH	Vno	140 MPH	Final	70
Glide	80 MPH	Vne	174 MPH	Short	65
Vy	80 MPH	X-wind		TAS	110kts

Sheridan Lights 123.00 Glenndale 122.9

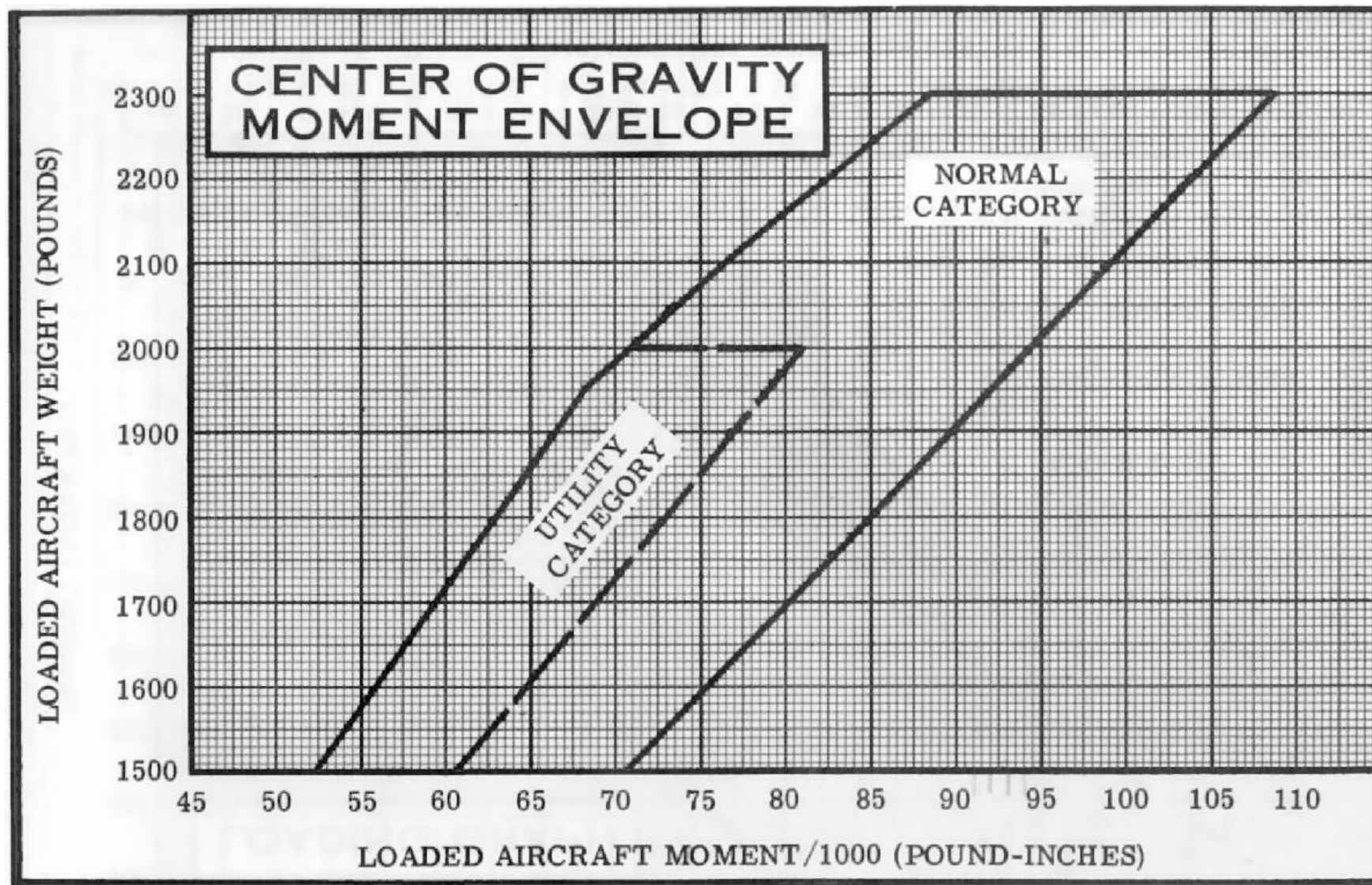


LOADING GRAPH



CODE

- PILOT AND FRONT PASSENGER
- - - FUEL (36 GAL. MAX. @ 6#/GAL.)
- REAR PASSENGERS
- BAGGAGE or Passenger on Auxiliary Seat (120# MAX.)



N2732L - Compass Deviation

For	Steer
360	360
30	35
60	56
90	90
120	120
150	150
180	180
210	208
240	240
270	270
300	300
330	328

TAKE-OFF DATA

TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY, FLAPS UP

GROSS WEIGHT LBS.	IAS AT 50 FT. MPH	HEAD WIND KNOTS	@ S.L. & 59° F		@ 2500 ft. & 50° F		@ 5000 ft. & 41° F		@ 7500 ft. & 32° F	
			GROUND RUN	TOTAL TO CLEAR 50' OBS.	GROUND RUN	TOTAL TO CLEAR 50' OBS.	GROUND RUN	TOTAL TO CLEAR 50' OBS.	GROUND RUN	TOTAL TO CLEAR 50' OBS.
2300	70	0	865	1525	1040	1910	1255	2480	1565	3855
		10	615	1170	750	1485	920	1955	1160	3110
		20	405	850	505	1100	630	1480	810	2425
2000	65	0	630	1095	755	1325	905	1625	1120	2155
		10	435	820	530	1005	645	1250	810	1685
		20	275	580	340	720	425	910	595	1255
1700	60	0	435	780	520	920	625	1095	765	1370
		10	290	570	355	680	430	820	535	1040
		20	175	385	215	470	270	575	345	745

- NOTES: 1. Increase distance 10% for each 25°F above standard temperature for particular altitude.
2. For operation on a dry, grass runway, increase distances (both "ground run" and "total to clear 50 ft. obstacle") by 7% of the "total to clear 50 ft. obstacle" figure.

MAXIMUM RATE-OF-CLIMB DATA

GROSS WEIGHT LBS.	@ S.L. & 59° F			@ 5000 ft. & 41° F			@ 10,000 ft. & 23° F			@ 15,000 ft. & 5° F		
	IAS MPH	RATE OF CLIMB FT/MIN.	GALS OF FUEL USED	IAS MPH	RATE OF CLIMB FT/MIN.	FROM S.L. FUEL USED	IAS MPH	RATE OF CLIMB FT/MIN.	FROM S.L. FUEL USED	IAS MPH	RATE OF CLIMB FT/MIN.	FROM S.L. FUEL USED
2300	80	645	1.0	78	435	2.6	77	230	4.8	76	22	11.5
2000	77	840	1.0	76	610	2.2	74	380	3.6	73	155	6.3
1700	75	1085	1.0	73	825	1.9	71	570	2.9	70	315	4.4

- NOTES: 1. Flaps up, full throttle and mixture leaned for smooth operation above 5000 ft.
2. Fuel used includes warm-up and take-off allowance.
3. For hot weather, decrease rate of climb 20 ft./min. for each 10°F above standard day temperature for particular altitude.

CRUISE & RANGE PERFORMANCE

172 SKYHAWK

Gross Weight- 2300 Lbs. *
Standard Conditions *
Zero Wind * Lean Mixture *
36 Gal. of Fuel (No Reserve)

NOTE: Maximum cruise is normally limited to 75% power. For standard 172 performance, subtract 1 MPH from the higher cruise speeds shown.

ALT.	RPM	% BHP	TAS MPH	GAL. / HOUR	ENDR. HOURS	RANGE MILES
2500	2700	93	138	10.5	3.4	470
	2600	84	131	9.5	3.8	495
	2500	75	125	8.5	4.2	530
	2400	67	119	7.6	4.7	560
	2300	59	113	6.8	5.3	595
	2200	52	106	6.2	5.8	615
	2100	46	100	5.7	6.4	635
5000	2700	87	136	9.8	3.7	500
	2600	78	130	8.8	4.1	525
	2550	74	127	8.4	4.3	550
	2500	70	124	7.9	4.5	560
	2400	62	118	7.1	5.1	600
	2300	55	111	6.4	5.6	625
	2200	49	105	5.9	6.1	640
	2100	44	98	5.5	6.4	640
7500	2650	77	132	8.7	4.2	550
	2600	73	129	8.2	4.3	560
	2500	65	123	7.4	4.9	600
	2400	58	116	6.7	5.3	620
	2300	52	110	6.1	5.9	650
	2200	47	103	5.7	6.4	655
	2100	42	97	5.3	6.7	655
10,000	2600	68	128	7.7	4.7	605
	2500	61	121	7.0	5.2	625
	2400	55	115	6.4	5.6	645
	2300	49	108	5.9	6.1	655
	2200	45	102	5.5	6.6	670
	2100	41	96	5.2	6.8	655
12,500	2600	63	126	7.2	5.0	630
	2500	57	120	6.6	5.4	650
	2400	52	113	6.1	5.9	670
	2300	47	107	5.7	6.3	670
	2200	43	101	5.4	6.6	670

The performance figures above apply to aircraft equipped with a standard McCauley 1C172/EM7653 propeller. Refer to figure 5-5 for information concerning aircraft with an optional McCauley 1C172/EM7651 climb propeller.

CRUISE AND RANGE PERFORMANCE

With McCauley 1C172/EM 7651 Propeller

To obtain same % BHP as shown in adjoining figure and on Cessna Power Computer, increase RPM as follows:

For % BHP	Increase RPM
75	+20 RPM
70	+10 RPM
65 (and lower)	0 RPM

The faster turning climb propeller gives a slight loss in cruise speed at a given % BHP as shown below:

At % BHP	Speed Loss Differential
70 - 75	0 MPH
65 - 70	-1.0 MPH
60 - 65	-1.5 MPH
55 - 60	-2.0 MPH
50 - 55	-3.0 MPH

NOTE: When your aircraft is equipped with a McCauley 1C172/EM 7651 climb propeller, the above factors should be used in conjunction with the Cruise and Range Performance on the adjoining page.

LANDING DATA

LANDING DISTANCE ON HARD SURFACE RUNWAY
NO WIND - 40° FLAPS - POWER OFF

GROSS WEIGHT LBS.	APPROACH IAS MPH	@ S.L. & 59° F		@ 2500 ft. & 50° F		@ 5000 ft. & 41° F		@ 7500 ft. & 32° F	
		GROUND ROLL	TOTAL TO CLEAR 50' OBS.	GROUND ROLL	TOTAL TO CLEAR 50' OBS.	GROUND ROLL	TOTAL TO CLEAR 50' OBS.	GROUND ROLL	TOTAL TO CLEAR 50' OBS.
2300	69	520	1250	560	1310	605	1385	650	1455

NOTES: 1. Reduce landing distance 10% for each 5 knot headwind.
2. For operation on a dry, grass runway, increase distances (both "ground roll" and "total to clear 50 ft. obstacle") by 20% of the "total to clear 50 ft. obstacle" figure.

MAXIMUM GLIDE

- SPEED 80 MPH (IAS)
- PROPELLER WINDMILLING
- FLAPS UP ● ZERO WIND

