N2732L – Cessna 172

Aircraft Fact Book
## 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
- Master Switch... OFF
- Fuel Selector Valve... BOTH
- Baggage Door... CHECK

### CABIN (Night Operations)
- Flaps... DOWN FOR INSPECTION
- Ignition Switch... OFF
- Master Switch... OFF
- Fuel Quantity Indicators... CHECK QUANTITY
- 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 Quantity... CHECK VISUALLY
- Fuel Filler Cap... SECURE

### NOSE
- Engine Oil Dipstick... (6/8 Quarts) CHECK/SECURE
- Fuel Strainer Drain Knob... CHECK/SECURE
- 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
- Mail 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, 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
- Oil Pressure... CHECK
- Throttle... WARM UP @ 1000 RPM
- 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, Harness... CHECK SECURE
- Doors and Windows... CLOSE & LOCK
- Flight Controls... FREE & CORRECT
- Fuel Quantity... CHECK VISUALLY
- Fuel Selector Valve... BOTH
- Fuel Quantity... CHECK
- Mixture... RICH
- Throttle... 1700 RPM
- Magnetos... CHECK (125 max - 75 difference)
- Carburetor Heat... CHECK FOR RPM DROP

### TAKEOFF
- Wing Flaps... UP
- Carburetor Heat... COLD (IN)
- Elevator Trim... SET
- Mixture... RICH
- Throttle... FULL OPEN
- Brakes... RELEASE
- Elevator Control... SLIGHTLY TAIL LOW
- Climb Speed... 80 MPH

### SHORT FIELD TAKEOFF
- Wing Flaps... UP
- Carburetor Heat... COLD (IN)
- Elevator Trim... SET
- 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 Trim................................ADJUST
Mixture.........................................LEAN

DESCENT
Fuel Selector Valve................................BOTH
Power........................................ADJUST
Mixture..........................................LEAN
Carburetor Heat..........................FULL HEAT (OUT) AS REQ'D

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................................FULL DOWN
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 OPEN
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
Hobs............................................RECORD
Aircraft.......................................SECURE
Flight Plan........................................CLOSE

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF RUN
Airspeed...................................70 – 80 MPH
Mixture...........................................IDLE CUTOFF
Fuel Selector Valve..........................OFF
Ignition Switch................................OFF
Wing Flaps.................................As Required
Master Switch...............................OFF

ENGINE FAILURE DURING FLIGHT
Airspeed........................................80 MPH
Carb Heat..................................IDLE CUTOFF
Fuel Selector Valve..........................OFF
Ignition Switch................................OFF
Wing Flaps.................................As required
Master Switch...............................OFF
Transponder.................................OFF
Radio........................................121.5 MAYDAY!

EMERGENCY LANDING W/O POWER
Airspeed........................................70 - 80 MPH
Mixture...........................................IDLE CUTOFF
Fuel Selector Valve..........................OFF
Ignition Switch................................OFF
Wing Flaps.................................As required
Master Switch...............................OFF
Doors........................UNLATCH PRIOR TO TOUCHDOWN
Touchdown.................................Slightly Tail Low (min. speed)
Brakes..........................................APPLY HEAVILY

Max Weight 2300 lbs Useable 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........................................................................110kts

Sheridan Lights 123.00 Glenndale 122.9

Kokomo Muni.
CATF 123.0

VOR-OKK
113.5

Sheridan (514)

CTAF 123.075

3590 X 95

730 X 50

113.5
# Weight and Balance Data

**Cessna 172H s/n 17255932  N2732L**  
Supersedes 10 July 86

1. Removed left and right magnetos, Slick model 664  
2. Installed new left and right magnetos, Slick model 6364

<table>
<thead>
<tr>
<th>Item</th>
<th>Weight</th>
<th>Arm/C.G.</th>
<th>Moment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft old EW</td>
<td>1419.38</td>
<td>37.1</td>
<td>52662.0</td>
</tr>
<tr>
<td>Removed</td>
<td>-13.42</td>
<td>-20</td>
<td>268.4</td>
</tr>
<tr>
<td>Added</td>
<td>+9.8</td>
<td>-20</td>
<td>196.0</td>
</tr>
<tr>
<td>New EW</td>
<td>1415.76</td>
<td>new CG</td>
<td>37.2</td>
</tr>
</tbody>
</table>

Gross weight 2300.0  
New empty weight 1415.8  
New Useful load 884.2  
New C.G. 37.2  
Total Moment 52659.6

---

Charles W. Beene  
A&P 1932544 IA  

--- END ---
N2732L - Compass Deviation

<table>
<thead>
<tr>
<th>For</th>
<th>Steer</th>
</tr>
</thead>
<tbody>
<tr>
<td>360</td>
<td>360</td>
</tr>
<tr>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>60</td>
<td>56</td>
</tr>
<tr>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>180</td>
<td>180</td>
</tr>
<tr>
<td>210</td>
<td>208</td>
</tr>
<tr>
<td>240</td>
<td>240</td>
</tr>
<tr>
<td>270</td>
<td>270</td>
</tr>
<tr>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>330</td>
<td>328</td>
</tr>
</tbody>
</table>
**TAKE-OFF DATA**

**TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY, FLAPS UP**

<table>
<thead>
<tr>
<th>GROSS WEIGHT LBS.</th>
<th>IAS AT 50 FT MPH</th>
<th>HEAD WIND KNOTS</th>
<th>@ S.L &amp; 39° F</th>
<th>@ 2500 ft &amp; 50° F</th>
<th>@ 5000 ft &amp; 41° F</th>
<th>@ 7500 ft &amp; 32° F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>GROUND RUN</td>
<td>TOTAL CLEAR 50° OBS.</td>
<td>GROUND RUN</td>
<td>TOTAL CLEAR 50° OBS.</td>
</tr>
<tr>
<td>2300</td>
<td></td>
<td></td>
<td>0</td>
<td>865</td>
<td>1525</td>
<td>1040</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td>615</td>
<td>1170</td>
<td>750</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20</td>
<td>405</td>
<td>850</td>
<td>505</td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
<td>0</td>
<td>630</td>
<td>1065</td>
<td>755</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td>435</td>
<td>820</td>
<td>530</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20</td>
<td>275</td>
<td>580</td>
<td>340</td>
</tr>
<tr>
<td>1700</td>
<td></td>
<td></td>
<td>0</td>
<td>435</td>
<td>780</td>
<td>520</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td>260</td>
<td>570</td>
<td>355</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20</td>
<td>175</td>
<td>385</td>
<td>215</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>GROSS WEIGHT LBS.</th>
<th>@ S.L &amp; 39° F</th>
<th>@ 5000 ft &amp; 41° F</th>
<th>@ 10,000 ft &amp; 23° F</th>
<th>@ 15,000 ft &amp; 5° F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IAS MPH</td>
<td>RATE OF CLimb FT/Min.</td>
<td>GALS OF FUEL USED</td>
<td>IAS MPH</td>
</tr>
<tr>
<td>2300</td>
<td>80</td>
<td>645</td>
<td>1.0</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>77</td>
<td>840</td>
<td>1.0</td>
<td>76</td>
</tr>
<tr>
<td>1700</td>
<td>75</td>
<td>1085</td>
<td>1.0</td>
<td>73</td>
</tr>
</tbody>
</table>

**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.

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

The performance figures above apply to aircraft equipped with a standard McCauley IC172/EM7653 propeller. Refer to figure 5-5 for information concerning aircraft with an optional McCauley IC172/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:

<table>
<thead>
<tr>
<th>For % BHP</th>
<th>Increase RPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>+20 RPM</td>
</tr>
<tr>
<td>70</td>
<td>+10 RPM</td>
</tr>
<tr>
<td>65 (and lower)</td>
<td>0 RPM</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>At % BHP</th>
<th>Speed Loss Differential</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 - 75</td>
<td>0 MPH</td>
</tr>
<tr>
<td>65 - 70</td>
<td>-1.0 MPH</td>
</tr>
<tr>
<td>60 - 65</td>
<td>-1.5 MPH</td>
</tr>
<tr>
<td>55 - 60</td>
<td>-2.0 MPH</td>
</tr>
<tr>
<td>50 - 55</td>
<td>-3.0 MPH</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>GROSS WEIGHT LBS.</th>
<th>APPROACH IAS MPH</th>
<th>@ S.L. &amp; 59° F</th>
<th>@ 2500 ft. &amp; 50° F</th>
<th>@ 5000 ft. &amp; 41° F</th>
<th>@ 7500 ft. &amp; 32° F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>GROUND ROLL</td>
<td>TOTAL TO CLEAR 50' OBS.</td>
<td>GROUND ROLL</td>
<td>TOTAL TO CLEAR 50' OBS.</td>
</tr>
<tr>
<td>2300</td>
<td>69</td>
<td>520</td>
<td>1250</td>
<td>560</td>
<td>1310</td>
</tr>
</tbody>
</table>

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