

## Section 5 – PERFORMANCE

### 170A, 170B

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

**CESSNA 170A, 170B WingX (145HP)**  
 TAKOFF DISTANCE  
 CONDITIONS: Zero Wind  
 Flaps UP  
 Full Throttle Prior to Brake Release Speed at 50 ft: 76 mph TIAS  
 Paved, level, dry runway

| WEIGHT   | Press Alt<br>in Feet | 0°F                |                              | 20°F               |                              | 40°F               |                              | 60°F               |                              | 80°F               |                              | 100°F              |                              |
|----------|----------------------|--------------------|------------------------------|--------------------|------------------------------|--------------------|------------------------------|--------------------|------------------------------|--------------------|------------------------------|--------------------|------------------------------|
|          |                      | Grnd<br>Roll<br>Ft | Clear<br>50 Ft<br>Obst<br>Ft | Grnd<br>Roll<br>Ft | Clear<br>50 Ft<br>Obst<br>Ft | Grnd<br>Roll<br>Ft | Clear<br>50 Ft<br>Obst<br>Ft | Grnd<br>Roll<br>Ft | Clear<br>50 Ft<br>Obst<br>Ft | Grnd<br>Roll<br>Ft | Clear<br>50 Ft<br>Obst<br>Ft | Grnd<br>Roll<br>Ft | Clear<br>50 Ft<br>Obst<br>Ft |
| 2250 lbs | 0                    | 610                | 1525                         | 660                | 1655                         | 710                | 1780                         | 760                | 1905                         | 805                | 2020                         | 860                | 2145                         |
|          | 2000                 | 745                | 1860                         | 800                | 2000                         | 860                | 2145                         | 915                | 2290                         | 980                | 2450                         | 1045               | 2615                         |
|          | 4000                 | 895                | 2240                         | 960                | 2395                         | 1025               | 2565                         | 1090               | 2730                         | 1165               | 2920                         | 1255               | 3140                         |
|          | 6000                 | 1065               | 2665                         | 1145               | 2865                         | 1225               | 3065                         | 1315               | 3285                         | 1405               | 3515                         | 1515               | 3785                         |
|          | 7000                 | 1180               | 2950                         | 1270               | 3180                         | 1365               | 3410                         | 1465               | 3660                         | 1570               | 3920                         | 1690               | 4225                         |
| 2200 lbs | 0                    | 584                | 1460                         | 632                | 1580                         | 680                | 1700                         | 728                | 1820                         | 772                | 1930                         | 820                | 2050                         |
|          | 2000                 | 712                | 1780                         | 764                | 1910                         | 820                | 2050                         | 876                | 2190                         | 936                | 2340                         | 1000               | 2500                         |
|          | 4000                 | 856                | 2140                         | 916                | 2290                         | 980                | 2450                         | 1044               | 2610                         | 1116               | 2790                         | 1200               | 3000                         |
|          | 6000                 | 1020               | 2550                         | 1096               | 2740                         | 1172               | 2930                         | 1256               | 3140                         | 1344               | 3360                         | 1448               | 3620                         |
|          | 7000                 | 1128               | 2820                         | 1216               | 3040                         | 1304               | 3260                         | 1400               | 3500                         | 1500               | 3750                         | 1616               | 4040                         |

Shaded values are original (unchanged) Cessna data and are supplied for reference.

#### Landing Performance

Increase landing distance by 10% with WingExtensions installed.

## Section 6 – WEIGHT AND BALANCE

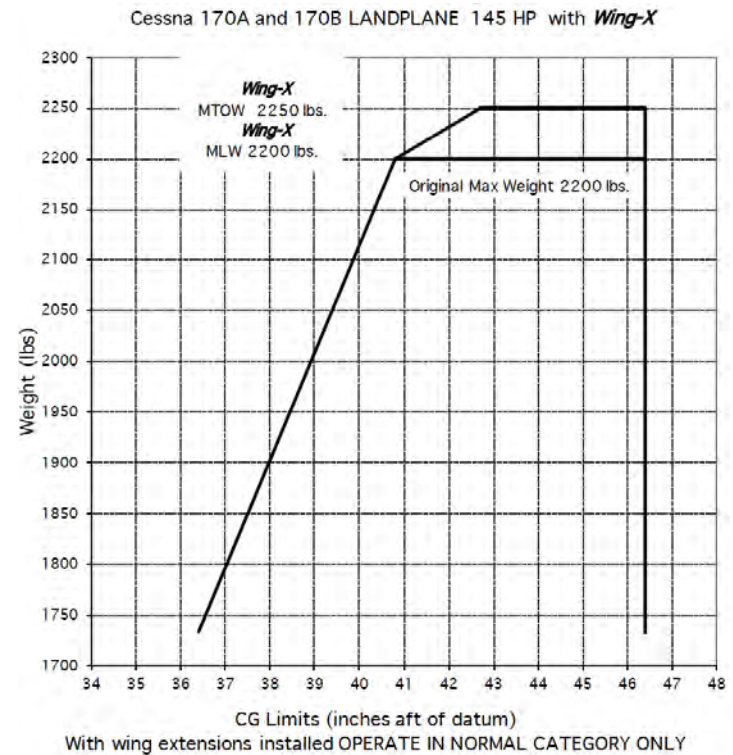
### 170A, 170B

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.



## Section 5 – PERFORMANCE

### 172

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

**TAKE-OFF DISTANCE WITH FLAPS UP, FROM HARD SURFACE RUNWAY WITH FLAPS UP  
CESSNA 172**

SHADED CELLS ARE AFM DATA

| GROSS WEIGHT POUNDS | IAS AT 50' MPH | HEAD WIND KNOTS | AT SEA LEVEL & 59°F |                          | AT 2500 FT & 50°F |                          | AT 5000 FT & 41°F |                          | AT 7500 FT & 32°F |                          |
|---------------------|----------------|-----------------|---------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|
|                     |                |                 | GROUND RUN          | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS |
| 1600                | 56             | 0               | 355                 | 805                      | 420               | 965                      | 505               | 1145                     | 610               | 1390                     |
|                     |                | 10              | 230                 | 525                      | 275               | 630                      | 335               | 765                      | 375               | 950                      |
|                     |                | 20              | 130                 | 290                      | 160               | 360                      | 200               | 455                      | 255               | 580                      |
| 1900                | 63             | 0               | 515                 | 1175                     | 615               | 1400                     | 750               | 1710                     | 955               | 2175                     |
|                     |                | 10              | 350                 | 790                      | 420               | 960                      | 525               | 1190                     | 675               | 1535                     |
|                     |                | 20              | 210                 | 475                      | 260               | 590                      | 330               | 745                      | 435               | 990                      |
| 2200                | 69             | 0               | 725                 | 1650                     | 880               | 2000                     | 1080              | 2455                     | 1365              | 3100                     |
|                     |                | 10              | 505                 | 1145                     | 620               | 1405                     | 775               | 1760                     | 990               | 2255                     |
|                     |                | 20              | 315                 | 720                      | 400               | 910                      | 510               | 1160                     | 675               | 1530                     |
| 2250                | 70             | 0               | 765                 | 1740                     | 930               | 2115                     | 1145              | 2595                     | 1440              | 3270                     |
|                     |                | 10              | 535                 | 1215                     | 660               | 1490                     | 820               | 1870                     | 1045              | 2390                     |
|                     |                | 20              | 335                 | 765                      | 425               | 970                      | 545               | 1240                     | 720               | 1635                     |

NOTES: 1. Increase distance 10% for each 25°F above standard temperature for a particular altitude.  
2. Shaded values are original (unchanged) Cessna data and are supplied for reference.

#### Landing Performance

Increase landing distance by 10% with WingExtensions installed.

## Section 6 – WEIGHT AND BALANCE

### 172

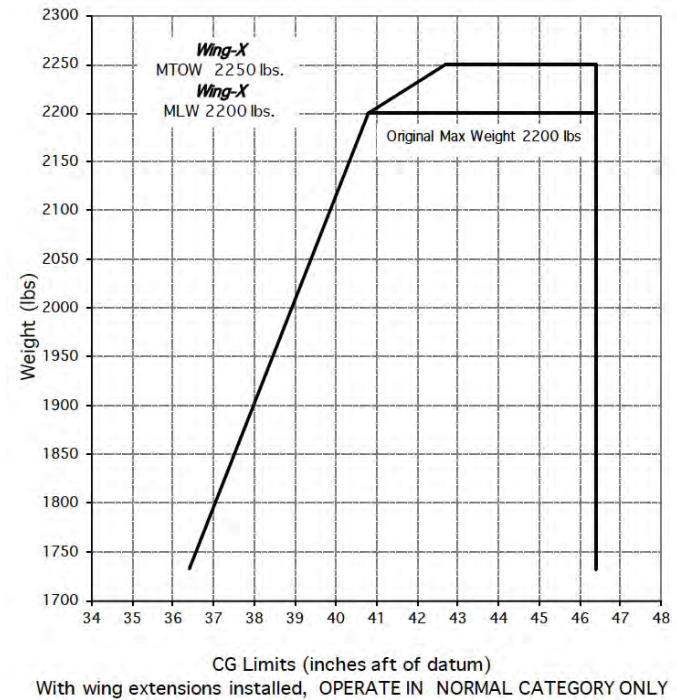
**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.

Cessna 172, 172A, 172B LANDPLANE 145 HP with *Wing-X*



## Section 5 – PERFORMANCE

### 172A, 172B

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

**TAKE-OFF DISTANCE WITH FLAPS UP, FROM HARD SURFACE RUNWAY WITH FLAPS UP  
CESSNA 172A and 172B**

SHADED CELLS ARE AFM DATA

| GROSS WEIGHT POUNDS | IAS AT 50' MPH | HEAD WIND KNOTS | AT SEA LEVEL & 59°F |                          | AT 2500 FT & 50°F |                          | AT 5000 FT & 41°F |                          | AT 7500 FT & 32°F |                          |
|---------------------|----------------|-----------------|---------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|
|                     |                |                 | GROUND RUN          | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS |
| 1600                | 56             | 0               | 380                 | 725                      | 460               | 845                      | 555               | 1000                     | 680               | 1205                     |
|                     |                | 10              | 215                 | 470                      | 285               | 560                      | 330               | 670                      | 415               | 820                      |
|                     |                | 20              | 95                  | 265                      | 125               | 320                      | 160               | 395                      | 210               | 495                      |
| 1900                | 61             | 0               | 560                 | 1000                     | 675               | 1185                     | 820               | 1420                     | 1015              | 1755                     |
|                     |                | 10              | 335                 | 675                      | 415               | 805                      | 515               | 980                      | 645               | 1230                     |
|                     |                | 20              | 165                 | 400                      | 210               | 490                      | 275               | 610                      | 360               | 785                      |
| 2200                | 66             | 0               | 780                 | 1370                     | 945               | 1615                     | 1155              | 1995                     | 1425              | 2495                     |
|                     |                | 10              | 490                 | 945                      | 605               | 1130                     | 750               | 1410                     | 950               | 1805                     |
|                     |                | 20              | 260                 | 590                      | 330               | 710                      | 425               | 915                      | 560               | 1205                     |
| 2250                | 67             | 0               | 820                 | 1430                     | 995               | 1710                     | 1220              | 2100                     | 1520              | 2650                     |
|                     |                | 10              | 520                 | 995                      | 640               | 1205                     | 795               | 1500                     | 1010              | 1920                     |
|                     |                | 20              | 280                 | 625                      | 355               | 770                      | 455               | 985                      | 600               | 1290                     |

NOTES: 1. Increase distance 10% for each 25°F above standard temperature for a particular altitude.  
2. Shaded values are original (unchanged) Cessna data and are supplied for reference.

#### Landing Performance

Increase landing distance by 10% with WingExtensions installed.

## Section 6 – WEIGHT AND BALANCE

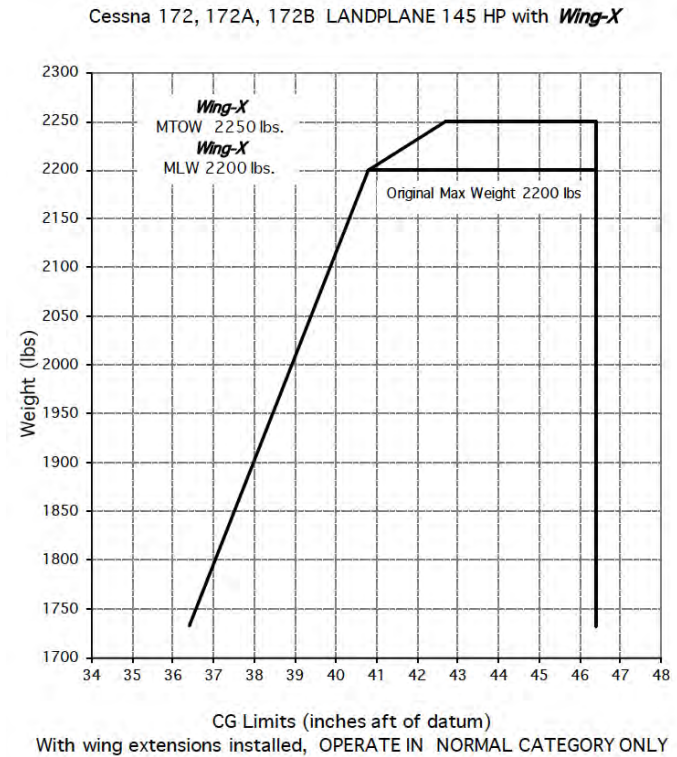
### 172A, 172B

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.



## Section 5 – PERFORMANCE 172C

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

### Takeoff Performance

**TAKE-OFF DISTANCE WITH FLAPS UP, FROM HARD SURFACE RUNWAY WITH FLAPS UP  
CESSNA 172C**

| GROSS WEIGHT POUNDS | IAS AT 50' MPH | HEAD WIND KNOTS | SHADED CELLS ARE AFM DATA |                          |                   |                          |                   |                          |                   |                          |
|---------------------|----------------|-----------------|---------------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|
|                     |                |                 | AT SEA LEVEL & 59°F       |                          | AT 2500 FT & 50°F |                          | AT 5000 FT & 41°F |                          | AT 7500 FT & 32°F |                          |
|                     |                |                 | GROUND RUN                | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS |
| 1600                | 56             | 0               | 380                       | 725                      | 460               | 845                      | 555               | 1000                     | 680               | 1205                     |
|                     |                | 10              | 215                       | 470                      | 285               | 560                      | 330               | 670                      | 415               | 820                      |
|                     |                | 20              | 95                        | 265                      | 125               | 320                      | 160               | 395                      | 210               | 495                      |
| 1900                | 61             | 0               | 560                       | 1000                     | 675               | 1185                     | 820               | 1420                     | 1015              | 1755                     |
|                     |                | 10              | 335                       | 675                      | 415               | 805                      | 515               | 980                      | 645               | 1230                     |
|                     |                | 20              | 165                       | 400                      | 210               | 490                      | 275               | 610                      | 360               | 785                      |
| 2250                | 67             | 0               | 825                       | 1430                     | 995               | 1710                     | 1220              | 2100                     | 1520              | 2650                     |
|                     |                | 10              | 520                       | 995                      | 640               | 1205                     | 795               | 1500                     | 1010              | 1920                     |
|                     |                | 20              | 280                       | 625                      | 355               | 770                      | 455               | 985                      | 600               | 1290                     |
| 2300                | 68             | 0               | 870                       | 1500                     | 1045              | 1795                     | 1285              | 2215                     | 1600              | 2800                     |
|                     |                | 10              | 550                       | 1050                     | 680               | 1270                     | 840               | 1590                     | 1070              | 2035                     |
|                     |                | 20              | 300                       | 665                      | 380               | 815                      | 485               | 1050                     | 640               | 1375                     |

NOTES: 1. Increase distance 10% for each 25°F above standard temperature for a particular altitude.  
2. Shaded values are original (unchanged) Cessna data and are supplied for reference.

### Landing Performance

Increase landing distance by 10% with WingExtensions installed.

## Section 6 – WEIGHT AND BALANCE

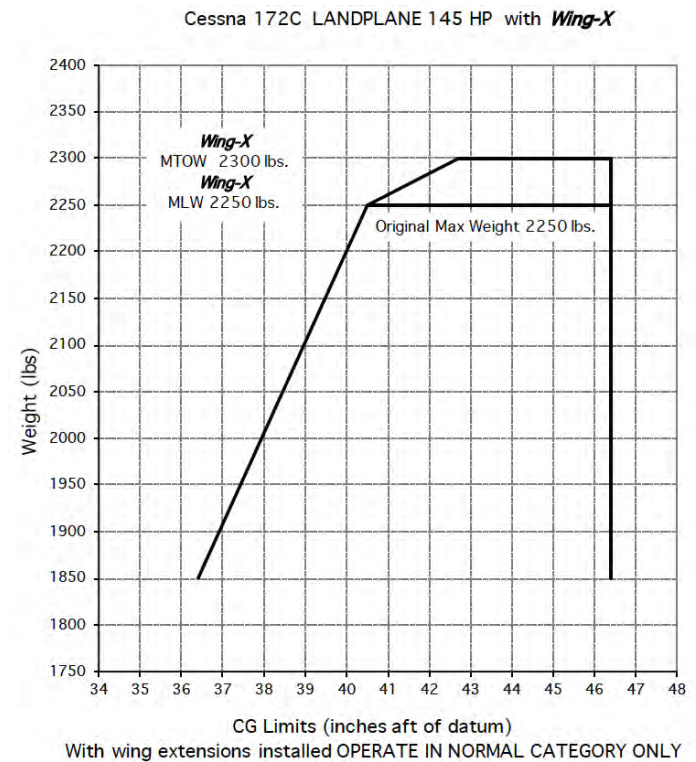
### 172C

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.





## Section 5 – PERFORMANCE

### 172D, 172E, 172F, 172G, 172H

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The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

**TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY WITH FLAPS UP**  
**CESSNA 172D, 172E, 172F, 172G, 172H**  
 SHADED CELLS ARE AFM DATA

| GROSS WEIGHT POUNDS | IAS AT 50' MPH | HEAD WIND KNOTS | AT SEA LEVEL & 59°F |                          | AT 2500 FT & 50°F |                          | AT 5000 FT & 41°F |                          | AT 7500 FT & 32°F |                          |
|---------------------|----------------|-----------------|---------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|
|                     |                |                 | GROUND RUN          | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS |
| 2350                | 71             | 0               | 910                 | 1610                     | 1090              | 2025                     | 1320              | 2655                     | 1650              | 4225                     |
|                     |                | 10              | 650                 | 1240                     | 790               | 1580                     | 970               | 2110                     | 1225              | 3425                     |
|                     |                | 20              | 430                 | 910                      | 535               | 1175                     | 670               | 1600                     | 970               | 2685                     |
| 2300                | 70             | 0               | 865                 | 1525                     | 1040              | 1910                     | 1255              | 2480                     | 1565              | 3855                     |
|                     |                | 10              | 615                 | 1170                     | 750               | 1485                     | 920               | 1965                     | 1160              | 3110                     |
|                     |                | 20              | 405                 | 850                      | 505               | 1100                     | 630               | 1480                     | 910               | 2425                     |
| 2000                | 65             | 0               | 630                 | 1095                     | 755               | 1325                     | 905               | 1625                     | 1120              | 2155                     |
|                     |                | 10              | 435                 | 820                      | 530               | 1005                     | 645               | 1250                     | 810               | 1685                     |
|                     |                | 20              | 275                 | 560                      | 340               | 720                      | 425               | 910                      | 585               | 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:
- Increase distance 10% for each 25°F above standard temperature for a particular altitude.
  - For operation on a dry, grass runway, increase distance (both "ground run" and "total to clear a 50 ft. obstacle") by 7% of the "Total to clear 50 ft obstacle" figure.
  - Shaded values are original (unchanged) Cessna data and are supplied for reference.

#### Landing Performance

Increase landing distance by 10% with WingExtensions installed.

## Section 6 – WEIGHT AND BALANCE

### 172D, 172E, 172F, 172G, 172H

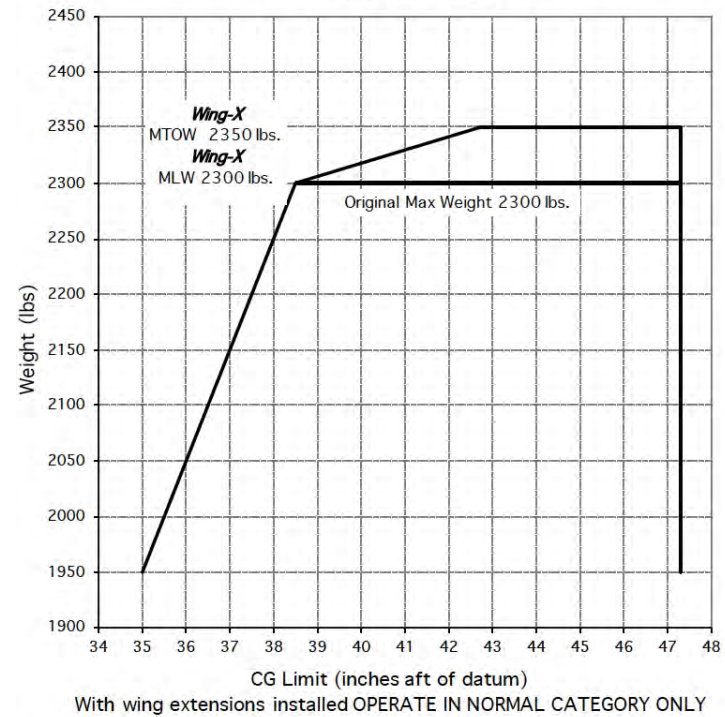
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Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.

Cessna 172D, 172E, 172F, 172G, 172H LANDPLANE  
145 HP with *Wing-X*



## Section 5 – PERFORMANCE

### 172I, 172K, 172L

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#### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

**TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY WITH FLAPS UP  
CESSNA 172I, 172K, 172L, 172M  
SHADED CELLS ARE AFM DATA**

| GROSS WEIGHT POUNDS | IAS AT 50' MPH | HEAD WIND KNOTS | AT SEA LEVEL & 59°F |                          | AT 2500 FT & 50°F |                          | AT 5000 FT & 41°F |                          | AT 7500 FT & 32°F |                          |
|---------------------|----------------|-----------------|---------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|
|                     |                |                 | GROUND RUN          | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS |
| 2400                | 70             | 0               | 950                 | 1695                     | 1145              | 2145                     | 1385              | 2835                     | 1735              | 4625                     |
|                     |                | 10              | 685                 | 1310                     | 835               | 1680                     | 1025              | 2265                     | 1295              | 3760                     |
|                     |                | 20              | 455                 | 970                      | 570               | 1255                     | 710               | 1720                     | 1035              | 2960                     |
| 2300                | 68             | 0               | 865                 | 1525                     | 1040              | 1910                     | 1255              | 2480                     | 1565              | 3855                     |
|                     |                | 10              | 615                 | 1170                     | 750               | 1485                     | 920               | 1965                     | 1160              | 3110                     |
|                     |                | 20              | 405                 | 850                      | 505               | 1100                     | 630               | 1480                     | 910               | 2425                     |
| 2000                | 63             | 0               | 630                 | 1095                     | 755               | 1325                     | 905               | 1625                     | 1120              | 2155                     |
|                     |                | 10              | 435                 | 820                      | 530               | 1005                     | 645               | 1250                     | 810               | 1685                     |
|                     |                | 20              | 275                 | 560                      | 340               | 720                      | 425               | 910                      | 585               | 1255                     |
| 1700                | 59             | 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 a particular altitude.
  2. For operation on a dry, grass runway, increase distance (both "ground run" and "total to clear a 50 ft. obstacle") by 7% of the "Total to clear 50 ft obstacle" figure.
  3. Shaded values are original (unchanged) Cessna data and are supplied for reference.

#### Landing Performance

Increase landing distance by 10% with WingExtensions installed.

## Section 6 – WEIGHT AND BALANCE

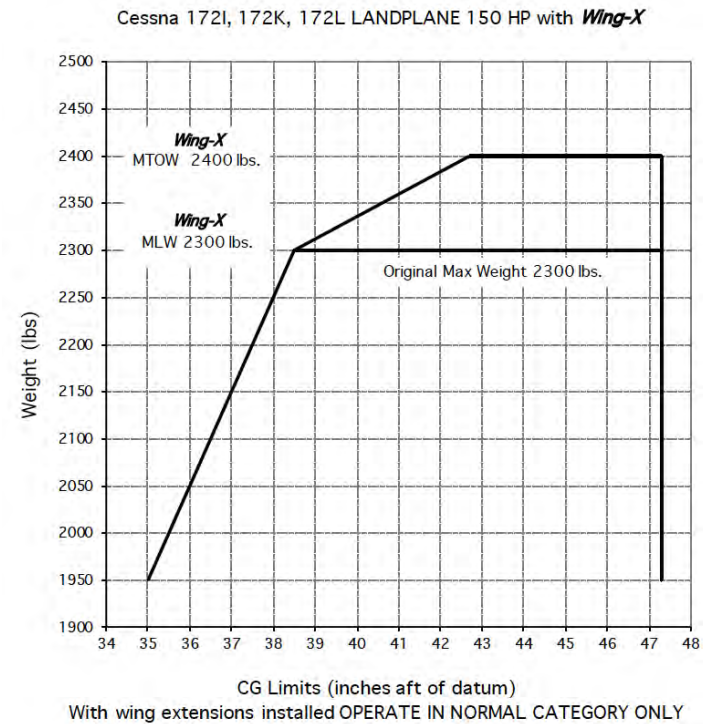
### 172I, 172K, 172L

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.



## Section 5 – PERFORMANCE

### 172M

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

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#### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

**TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY WITH FLAPS UP**  
**CESSNA 172I, 172K, 172L, 172M**  
 SHADED CELLS ARE AFM DATA

| GROSS WEIGHT POUNDS | IAS AT 50' MPH | HEAD WIND KNOTS | AT SEA LEVEL & 59°F |                          | AT 2500 FT & 50°F |                          | AT 5000 FT & 41°F |                          | AT 7500 FT & 32°F |                          |
|---------------------|----------------|-----------------|---------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|
|                     |                |                 | GROUND RUN          | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS |
| 2400                | 70             | 0               | 950                 | 1695                     | 1145              | 2145                     | 1385              | 2835                     | 1735              | 4625                     |
|                     |                | 10              | 685                 | 1310                     | 835               | 1680                     | 1025              | 2265                     | 1295              | 3760                     |
|                     |                | 20              | 455                 | 970                      | 570               | 1255                     | 710               | 1720                     | 1035              | 2960                     |
| 2300                | 68             | 0               | 865                 | 1525                     | 1040              | 1910                     | 1255              | 2480                     | 1565              | 3855                     |
|                     |                | 10              | 615                 | 1170                     | 750               | 1485                     | 920               | 1965                     | 1160              | 3110                     |
|                     |                | 20              | 405                 | 850                      | 505               | 1100                     | 630               | 1480                     | 910               | 2425                     |
| 2000                | 63             | 0               | 630                 | 1095                     | 755               | 1325                     | 905               | 1625                     | 1120              | 2155                     |
|                     |                | 10              | 435                 | 820                      | 530               | 1005                     | 645               | 1250                     | 810               | 1685                     |
|                     |                | 20              | 275                 | 560                      | 340               | 720                      | 425               | 910                      | 585               | 1255                     |
| 1700                | 59             | 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:
- Increase distance 10% for each 25°F above standard temperature for a particular altitude.
  - For operation on a dry, grass runway, increase distance (both "ground run" and "total to clear a 50 ft. obstacle") by 7% of the "Total to clear 50 ft obstacle" figure.
  - Shaded values are original (unchanged) Cessna data and are supplied for reference.

#### Landing Performance

Increase landing distance by 10% with WingExtensions installed.

Section 6 – WEIGHT AND BALANCE  
172M

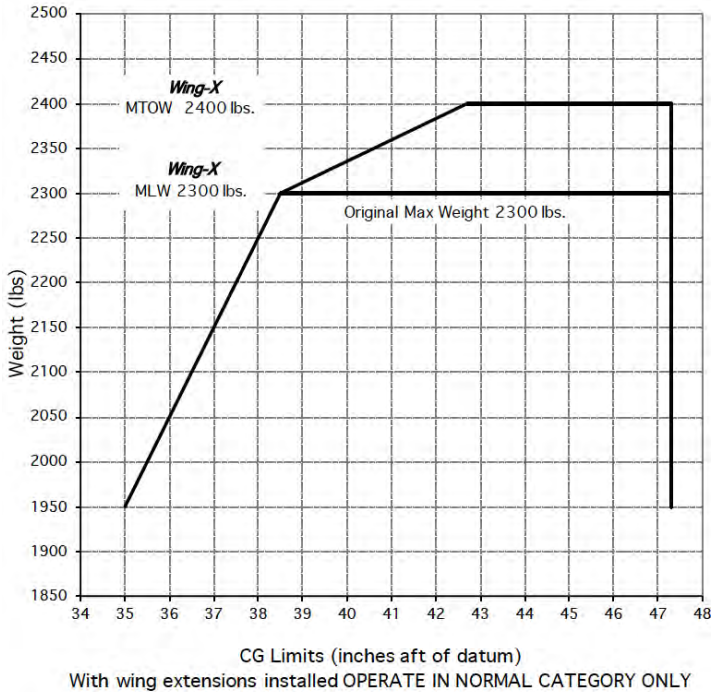
CAUTION: USE PAGE APPLICABLE TO YOUR MODEL

Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.

Cessna 172M LANDPLANE 150 HP with *Wing-X*



## Section 5 – PERFORMANCE 172N

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

### Takeoff Performance

**TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY WITH FLAPS UP  
CESSNA 172N**

| GROSS WEIGHT POUNDS |    | TAKEOFF SPEED |             | PRESS ALT FT |              | SHADED CELLS ARE AFM DATA |              |                          |              |                          |              |                          |              |                          |              |                          |  |      |  |  |  |
|---------------------|----|---------------|-------------|--------------|--------------|---------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--|------|--|--|--|
|                     |    |               |             |              |              | 0°C                       |              |                          |              | 10°C                     |              |                          |              | 20°C                     |              |                          |  | 30°C |  |  |  |
|                     |    | LIFT OFF KIAS | AT 50' KIAS |              | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS  | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS |  |      |  |  |  |
| 2400                | 53 | 60            | 0           | 795          | 1425         | 855                       | 1525         | 920                      | 1640         | 990                      | 1750         | 1060                     | 1870         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 1000        | 875          | 1560         | 940                       | 1680         | 1010                     | 1795         | 1080                     | 1925         | 1160                     | 2055         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 2000        | 955          | 1715         | 1025                      | 1840         | 1105                     | 1975         | 1190                     | 2115         | 1275                     | 2270         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 3000        | 1050         | 1885         | 1130                      | 2025         | 1215                     | 2180         | 1315                     | 2340         | 1405                     | 2505         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 4000        | 1155         | 2075         | 1245                      | 2235         | 1335                     | 2410         | 1440                     | 2590         | 1550                     | 2785         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 5000        | 1270         | 2295         | 1375                      | 2480         | 1480                     | 2675         | 1590                     | 2885         | 1705                     | 3110         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 6000        | 1395         | 2560         | 1515                      | 2765         | 1635                     | 2985         | 1755                     | 3230         | 1890                     | 3495         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 7000        | 1550         | 2855         | 1675                      | 3085         | 1805                     | 3350         | 1945                     | 3635         | 2100                     | 3950         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 8000        | 1720         | 3190         | 1860                      | 3480         | 2000                     | 3785         | 2160                     | 4135         | 2325                     | 4515         |                          |              |                          |  |      |  |  |  |
| 2300                | 52 | 59            | 0           | 720          | 1300         | 775                       | 1390         | 835                      | 1490         | 895                      | 1590         | 960                      | 1700         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 1000        | 790          | 1420         | 850                       | 1525         | 915                      | 1630         | 980                      | 1745         | 1050                     | 1865         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 2000        | 865          | 1555         | 930                       | 1670         | 1000                     | 1790         | 1075                     | 1915         | 1155                     | 2055         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 3000        | 950          | 1710         | 1025                      | 1835         | 1100                     | 1970         | 1185                     | 2115         | 1270                     | 2265         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 4000        | 1045         | 1880         | 1125                      | 2025         | 1210                     | 2175         | 1300                     | 2335         | 1400                     | 2510         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 5000        | 1150         | 2075         | 1240                      | 2240         | 1335                     | 2410         | 1435                     | 2595         | 1540                     | 2795         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 6000        | 1265         | 2305         | 1365                      | 2485         | 1475                     | 2680         | 1585                     | 2895         | 1705                     | 3125         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 7000        | 1400         | 2565         | 1510                      | 2770         | 1630                     | 3000         | 1755                     | 3245         | 1890                     | 3515         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 8000        | 1550         | 2860         | 1675                      | 3110         | 1805                     | 3375         | 1945                     | 3670         | 2095                     | 3990         |                          |              |                          |  |      |  |  |  |
| 2100                | 50 | 56            | 0           | 585          | 1070         | 630                       | 1140         | 680                      | 1220         | 725                      | 1300         | 780                      | 1390         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 1000        | 640          | 1165         | 690                       | 1245         | 740                      | 1330         | 795                      | 1420         | 850                      | 1520         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 2000        | 700          | 1270         | 755                       | 1360         | 810                      | 1455         | 870                      | 1555         | 935                      | 1665         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 3000        | 770          | 1390         | 830                       | 1490         | 890                      | 1595         | 955                      | 1710         | 1025                     | 1830         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 4000        | 845          | 1525         | 910                       | 1640         | 980                      | 1755         | 1050                     | 1880         | 1130                     | 2015         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 5000        | 930          | 1680         | 1000                      | 1805         | 1075                     | 1935         | 1155                     | 2075         | 1240                     | 2230         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 6000        | 1025         | 1850         | 1100                      | 1990         | 1185                     | 2140         | 1275                     | 2300         | 1370                     | 2475         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 7000        | 1130         | 2050         | 1215                      | 2210         | 1310                     | 2380         | 1410                     | 2560         | 1515                     | 2755         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 8000        | 1245         | 2275         | 1345                      | 2460         | 1450                     | 2655         | 1560                     | 2865         | 1680                     | 3090         |                          |              |                          |  |      |  |  |  |
| 1900                | 47 | 54            | 0           | 470          | 865          | 505                       | 920          | 540                      | 985          | 580                      | 1045         | 620                      | 1115         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 1000        | 515          | 940          | 550                       | 1005         | 590                      | 1070         | 635                      | 1140         | 680                      | 1215         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 2000        | 560          | 1025         | 605                       | 1095         | 645                      | 1170         | 695                      | 1245         | 745                      | 1330         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 3000        | 615          | 1115         | 660                       | 1195         | 710                      | 1275         | 760                      | 1365         | 815                      | 1455         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 4000        | 670          | 1220         | 725                       | 1305         | 780                      | 1400         | 835                      | 1495         | 895                      | 1595         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 5000        | 740          | 1340         | 795                       | 1435         | 855                      | 1535         | 920                      | 1640         | 985                      | 1755         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 6000        | 810          | 1470         | 875                       | 1575         | 940                      | 1690         | 1010                     | 1810         | 1085                     | 1940         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 7000        | 895          | 1620         | 965                       | 1740         | 1035                     | 1865         | 1115                     | 2000         | 1195                     | 2145         |                          |              |                          |  |      |  |  |  |
|                     |    |               | 8000        | 985          | 1790         | 1065                      | 1925         | 1145                     | 2065         | 1230                     | 2220         | 1320                     | 2385         |                          |              |                          |  |      |  |  |  |

- NOTES:
1. Short field technique as specified in Section 4 of AFM.
  2. Prior to takeoff from fields above 3000 ft elevation, the mixture should be leaned to give maximum RPM at full throttle, static runup.
  3. Decrease distances 10% for each 9 knots headwind. For operation with tailwinds to 10 knots increase distances by 10% for each 2 knots.
  4. For operation on a dry, grass runway, increase distances by 15% of the "ground roll" figure.

### Landing Performance

**Increase landing distance by 10% with WingExtensions installed.**

## Section 6 – WEIGHT AND BALANCE 172N

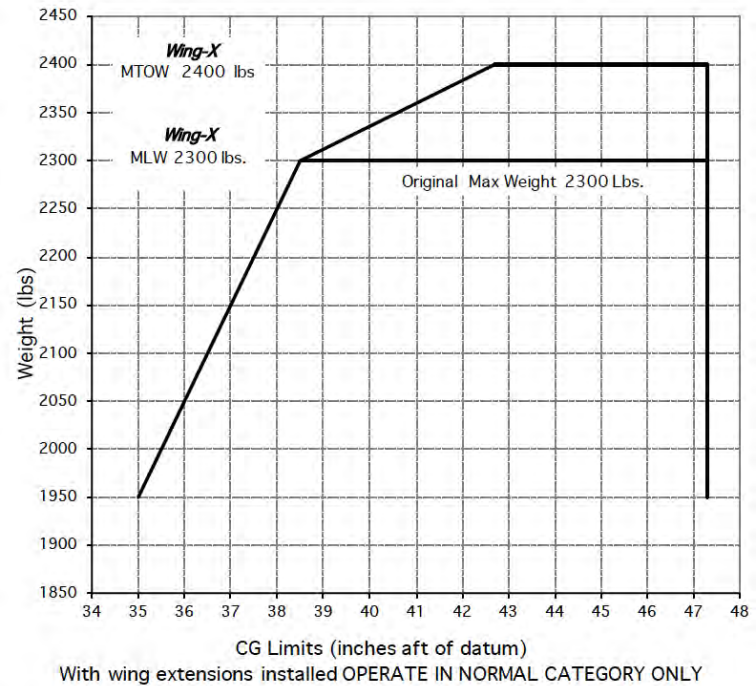
**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.

Cessna 172N LANDPLANE 160 HP with *Wing-X*





## Section 5 – PERFORMANCE

### 172P

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY WITH FLAPS 10°  
CESSNA 172P

SHADED CELLS ARE AFM DATA

| GROSS WEIGHT POUNDS | TAKEOFF SPEED |             | PRESS ALT FT | 0°C          |                          | 10°C         |                          | 20°C         |                          | 30°C         |                          | 40°C         |                          |
|---------------------|---------------|-------------|--------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|
|                     | LIFT OFF KIAS | AT 50' KIAS |              | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS |
| 2450                | 52            | 57          | 0            | 835          | 1535                     | 905          | 1650                     | 975          | 1770                     | 1050         | 1905                     | 1120         | 2045                     |
|                     |               |             | 1000         | 920          | 1685                     | 990          | 1815                     | 1065         | 1955                     | 1145         | 2105                     | 1230         | 2270                     |
|                     |               |             | 2000         | 1010         | 1860                     | 1090         | 2010                     | 1170         | 2170                     | 1260         | 2340                     | 1360         | 2530                     |
|                     |               |             | 3000         | 1110         | 2065                     | 1200         | 2235                     | 1295         | 2425                     | 1395         | 2620                     | 1500         | 2840                     |
|                     |               |             | 4000         | 1225         | 2305                     | 1325         | 2495                     | 1425         | 2720                     | 1545         | 2955                     | 1660         | 3215                     |
|                     |               |             | 5000         | 1350         | 2585                     | 1465         | 2815                     | 1580         | 3070                     | 1705         | 3360                     | 1840         | 3685                     |
|                     |               |             | 6000         | 1500         | 2920                     | 1625         | 3205                     | 1755         | 3515                     | 1900         | 3865                     | 2045         | 4275                     |
|                     |               |             | 7000         | 1665         | 3340                     | 1800         | 3680                     | 1950         | 4075                     | 2110         | 4535                     |              |                          |
|                     |               |             | 8000         | 1850         |                          | 2010         | 4310                     | 2175         | 4830                     |              |                          |              |                          |
| 2400                | 51            | 56          | 0            | 795          | 1460                     | 860          | 1570                     | 925          | 1685                     | 995          | 1810                     | 1065         | 1945                     |
|                     |               |             | 1000         | 875          | 1605                     | 940          | 1725                     | 1015         | 1860                     | 1090         | 2000                     | 1170         | 2155                     |
|                     |               |             | 2000         | 960          | 1770                     | 1035         | 1910                     | 1115         | 2060                     | 1200         | 2220                     | 1290         | 2395                     |
|                     |               |             | 3000         | 1055         | 1960                     | 1140         | 2120                     | 1230         | 2295                     | 1325         | 2480                     | 1425         | 2685                     |
|                     |               |             | 4000         | 1165         | 2185                     | 1260         | 2365                     | 1355         | 2570                     | 1465         | 2790                     | 1575         | 3030                     |
|                     |               |             | 5000         | 1285         | 2445                     | 1390         | 2660                     | 1500         | 2895                     | 1620         | 3160                     | 1745         | 3455                     |
|                     |               |             | 6000         | 1425         | 2755                     | 1540         | 3015                     | 1665         | 3300                     | 1800         | 3620                     | 1940         | 3990                     |
|                     |               |             | 7000         | 1580         | 3140                     | 1710         | 3450                     | 1850         | 3805                     | 2000         | 4220                     |              |                          |
|                     |               |             | 8000         | 1755         | 3615                     | 1905         | 4015                     | 2060         | 4480                     |              |                          |              |                          |
| 2200                | 49            | 54          | 0            | 650          | 1195                     | 700          | 1280                     | 750          | 1375                     | 805          | 1470                     | 865          | 1575                     |
|                     |               |             | 1000         | 710          | 1310                     | 765          | 1405                     | 825          | 1510                     | 885          | 1615                     | 950          | 1735                     |
|                     |               |             | 2000         | 780          | 1440                     | 840          | 1545                     | 905          | 1660                     | 975          | 1785                     | 1045         | 1915                     |
|                     |               |             | 3000         | 855          | 1585                     | 925          | 1705                     | 995          | 1835                     | 1070         | 1975                     | 1150         | 2130                     |
|                     |               |             | 4000         | 945          | 1750                     | 1020         | 1890                     | 1100         | 2040                     | 1180         | 2200                     | 1270         | 2375                     |
|                     |               |             | 5000         | 1040         | 1945                     | 1125         | 2105                     | 1210         | 2275                     | 1305         | 2465                     | 1405         | 2665                     |
|                     |               |             | 6000         | 1150         | 2170                     | 1240         | 2355                     | 1340         | 2555                     | 1445         | 2775                     | 1555         | 3020                     |
|                     |               |             | 7000         | 1270         | 2440                     | 1375         | 2655                     | 1485         | 2890                     | 1605         | 3155                     | 1730         | 3450                     |
|                     |               |             | 8000         | 1410         | 2760                     | 1525         | 3015                     | 1650         | 3305                     | 1785         | 3630                     | 1925         | 4005                     |
| 2000                | 46            | 51          | 0            | 525          | 970                      | 565          | 1035                     | 605          | 1110                     | 650          | 1185                     | 695          | 1265                     |
|                     |               |             | 1000         | 570          | 1060                     | 615          | 1135                     | 665          | 1215                     | 710          | 1295                     | 765          | 1385                     |
|                     |               |             | 2000         | 626          | 1160                     | 675          | 1240                     | 725          | 1330                     | 780          | 1425                     | 840          | 1525                     |
|                     |               |             | 3000         | 690          | 1270                     | 740          | 1365                     | 800          | 1465                     | 860          | 1570                     | 920          | 1685                     |
|                     |               |             | 4000         | 755          | 1400                     | 815          | 1500                     | 880          | 1615                     | 945          | 1735                     | 1015         | 1865                     |
|                     |               |             | 5000         | 830          | 1545                     | 900          | 1660                     | 970          | 1790                     | 1040         | 1925                     | 1120         | 2070                     |
|                     |               |             | 6000         | 920          | 1710                     | 990          | 1845                     | 1070         | 1990                     | 1150         | 2145                     | 1235         | 2315                     |
|                     |               |             | 7000         | 1015         | 1900                     | 1095         | 2055                     | 1180         | 2225                     | 1275         | 2405                     | 1370         | 2605                     |
|                     |               |             | 8000         | 1125         | 2125                     | 1215         | 2305                     | 1310         | 2500                     | 1410         | 2715                     | 1520         | 2950                     |

- NOTES:
1. Short field technique as specified in Section 4 of AFM.
  2. Prior to takeoff from fields above 3000 ft elevation, the mixture should be leaned to give maximum RPM at full throttle, static runup.
  3. Decrease distances 10% for each 9 knots headwind. For operation with tailwinds to 10 knots increase distances by 10% for each 2 knots.
  4. For operation on a dry, grass runway, increase distances by 15% of the "ground roll" figure.

#### Landing Performance

**Increase landing distance by 10% with WingExtensions installed.**

Section 6 – WEIGHT AND BALANCE

172P

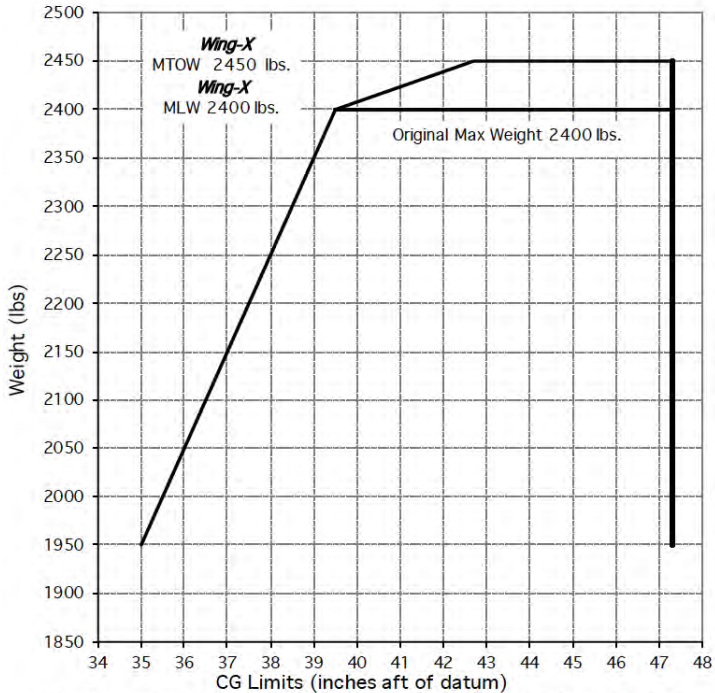
CAUTION: USE PAGE APPLICABLE TO YOUR MODEL

Installation of WingExtensions has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| WingExtensions (LH + RH)              | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult WingExtension and Spar Reinforcement Installation Guide #172 for details.

Cessna 172P LANDPLANE 160 HP with Wing-X



With wing extensions installed OPERATE IN NORMAL CATEGORY ONLY

## Section 5 – PERFORMANCE

### 172Q

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY WITH FLAPS 10°  
CESSNA 172Q

SHADED CELLS ARE AFM DATA

| GROSS WEIGHT POUNDS | TAKEOFF SPEED |             | PRESS ALT FT | 0°C          |                          |              |                          | 10°C         |                          |              |                          | 20°C         |                          |              |                          | 30°C         |                          |              |                          | 40°C |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------|---------------|-------------|--------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                     | LIFT OFF KIAS | AT 50' KIAS |              | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2675                | 49            | 58          | 0            | 965          | 1705                     | 1030         | 1825                     | 1110         | 1955                     | 1205         | 2115                     | 1290         | 2260                     | 1000         | 1055                     | 1865         | 1135                     | 2010         | 1220                     | 2160 | 1320 | 2335 | 1415 | 2510 | 2000 | 1150 | 2050 | 1235 | 2210 | 1340 | 2395 | 1450 | 2580 | 1560 | 2785 | 3000 | 1265 | 2265 | 1370 | 2450 | 1480 | 2650 | 1585 | 2875 | 1705 | 3120 | 4000 | 1400 | 2515 | 1515 | 2735 | 1635 | 2965 | 1755 | 3230 | 1885 | 3500 | 5000 | 1535 | 2805 | 1670 | 3060 | 1795 | 3335 | 1930 | 3635 | 2080 | 3975 | 6000 | 1695 | 3150 | 1840 | 3450 | 1990 | 3785 | 2140 | 4140 | 2315 | 4575 | 7000 | 1880 | 3580 | 2030 | 3940 | 2195 | 4335 | 2375 | 4795 | 2560 | 5330 | 8000 | 2090 | 4085 | 2255 | 4530 | 2445 | 5045 | 2650 | 5655 | 2855 | 6410 |      |      |      |      |      |      |      |      |      |
|                     |               |             | 2550         | 48           | 57                       | 0            | 860                      | 1520         | 925                      | 1630         | 995                      | 1750         | 1070                     | 1880         | 1150                     | 2015         | 1000                     | 940          | 1665                     | 1015 | 1790 | 1090 | 1925 | 1175 | 2070 | 1260 | 2225 | 2000 | 1030 | 1830 | 1110 | 1970 | 1195 | 2125 | 1290 | 2285 | 1385 | 2460 | 3000 | 1130 | 2015 | 1220 | 2175 | 1315 | 2350 | 1415 | 2535 | 1520 | 2740 | 4000 | 1245 | 2320 | 1345 | 2415 | 1450 | 2615 | 1560 | 2830 | 1675 | 3060 | 5000 | 1370 | 2480 | 1480 | 2690 | 1595 | 2920 | 1720 | 3170 | 1850 | 3450 | 6000 | 1510 | 2770 | 1635 | 3015 | 1765 | 3290 | 1900 | 3585 | 2050 | 3925 | 7000 | 1670 | 3120 | 1805 | 3410 | 1950 | 3735 | 2105 | 4100 | 2270 | 4520 | 8000 | 1850 | 3535 | 2000 | 3890 | 2165 | 4295 | 2340 | 4760 | 2525 | 5315 |      |      |      |      |      |      |
|                     |               |             |              |              |                          | 2400         | 47                       | 55           | 0                        | 745          | 1320                     | 805          | 1415                     | 865          | 1520                     | 925          | 1625                     | 995          | 1745                     | 1000 | 815  | 1445 | 880  | 1550 | 945  | 1665 | 1015 | 1785 | 1090 | 1915 | 2000 | 895  | 1585 | 965  | 1705 | 1035 | 1830 | 1115 | 1965 | 1195 | 2110 | 3000 | 980  | 1740 | 1055 | 1875 | 1135 | 2020 | 1225 | 2170 | 1315 | 2335 | 4000 | 1075 | 1920 | 1160 | 2070 | 1250 | 2235 | 1345 | 2405 | 1445 | 2595 | 5000 | 1185 | 2125 | 1275 | 2295 | 1375 | 2480 | 1485 | 2680 | 1595 | 2900 | 6000 | 1305 | 2360 | 1410 | 2555 | 1520 | 2770 | 1635 | 3005 | 1760 | 3260 | 7000 | 1440 | 2635 | 1555 | 2860 | 1680 | 3115 | 1810 | 3390 | 1950 | 3700 | 8000 | 1590 | 2960 | 1720 | 3230 | 1860 | 3530 | 2005 | 3865 | 2165 | 4245 |      |      |      |
|                     |               |             |              |              |                          |              |                          |              | 2200                     | 45           | 53                       | 0            | 610                      | 1090         | 660                      | 1165         | 705                      | 1245         | 760                      | 1335 | 815  | 1425 | 1000 | 670  | 1190 | 720  | 1270 | 775  | 1360 | 830  | 1460 | 890  | 1560 | 2000 | 730  | 1295 | 785  | 1390 | 845  | 1490 | 910  | 1600 | 975  | 1710 | 3000 | 800  | 1420 | 860  | 1525 | 930  | 1635 | 995  | 1755 | 1070 | 1885 | 4000 | 875  | 1560 | 945  | 1675 | 1020 | 1800 | 1095 | 1935 | 1175 | 2080 | 5000 | 965  | 1715 | 1040 | 1850 | 1120 | 1990 | 1205 | 2140 | 1295 | 2305 | 6000 | 1060 | 1895 | 1145 | 2045 | 1235 | 2205 | 1325 | 2300 | 1425 | 2565 | 7000 | 1170 | 2100 | 1260 | 2270 | 1360 | 2455 | 1465 | 2655 | 1575 | 2870 | 8000 | 1290 | 2335 | 1395 | 2535 | 1505 | 2745 | 1620 | 2980 | 1745 | 3235 |

- NOTES: 1. Short field technique as specified in Section 4 of AFM.  
 2. Prior to takeoff from fields above 3000 ft elevation, the mixture should be leaned to give maximum RPM at full throttle, static runup.  
 3. Decrease distances 10% for each 9 knots headwind. For operation with tailwinds to 10 knots increase distances by 10% for each 2 knots.  
 4. For operation on a dry, grass runway, increase distances by 15% of the "ground roll" figure.

#### Landing Performance

**Increase landing distance by 10% with WingExtensions installed.**

Section 6 – WEIGHT AND BALANCE

172Q

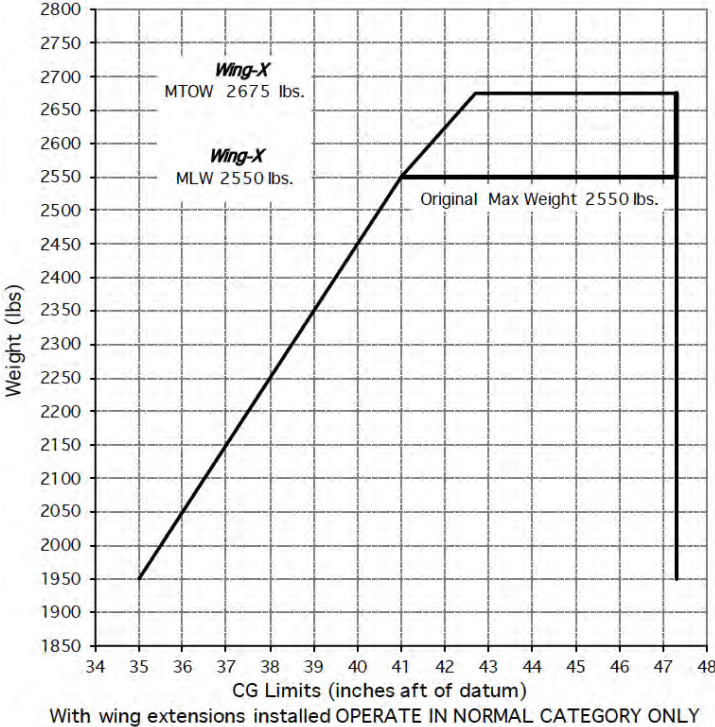
CAUTION: USE PAGE APPLICABLE TO YOUR MODEL

Installation of WingExtensions has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| WingExtensions (LH + RH)              | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult WingExtension and Spar Reinforcement Installation Guide #172 for details.

Cessna 172Q LANDPLANE 180 HP with Wing-X



With wing extensions installed OPERATE IN NORMAL CATEGORY ONLY

## Section 5 – PERFORMANCE

### 172R (160 HP)

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

The stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

The takeoff distances are approximately the same as the basic aircraft. Refer to the applicable Pilot / Flight Operating Manual.

#### Landing Performance

Increase landing distance by 10% with *WingExtensions* installed.

### Section 6 – WEIGHT AND BALANCE

### 172R (160 HP)

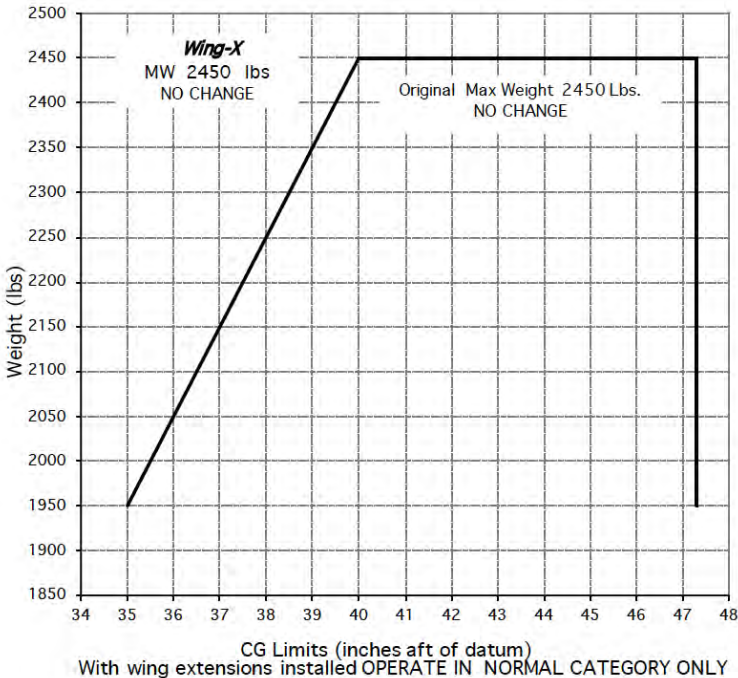
**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.

Cessna 172R LANDPLANE 160 HP with *Wing-X*



## Section 5 – PERFORMANCE

### 172R (180 HP)

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

**TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY WITH FLAPS 10°**  
**CESSNA 172R (180 HP), 172S**  
 SHADED CELLS ARE AFM DATA

| GROSS WEIGHT POUNDS | TAKEOFF SPEED |             | PRESS ALT FT | 0°C          |                          | 10°C         |                          | 20°C         |                          | 30°C         |                          | 40°C         |                          |
|---------------------|---------------|-------------|--------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|
|                     | LIFT OFF KIAS | AT 50' KIAS |              | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS |
| 2675                | 54            | 58          | 0            | 965          | 1640                     | 1040         | 1760                     | 1120         | 1885                     | 1205         | 2030                     | 1290         | 2180                     |
|                     |               |             | 1000         | 1060         | 1790                     | 1135         | 1925                     | 1230         | 2070                     | 1320         | 2240                     | 1425         | 2400                     |
|                     |               |             | 2000         | 1155         | 1970                     | 1255         | 2125                     | 1350         | 2285                     | 1445         | 2465                     | 1555         | 2650                     |
|                     |               |             | 3000         | 1270         | 2165                     | 1365         | 2340                     | 1475         | 2525                     | 1590         | 2730                     | 1710         | 2955                     |
|                     |               |             | 4000         | 1390         | 2385                     | 1505         | 2590                     | 1625         | 2800                     | 1750         | 3050                     | 1870         | 3275                     |
|                     |               |             | 5000         | 1525         | 2650                     | 1645         | 2885                     | 1795         | 3125                     | 1930         | 3395                     | 2060         | 3670                     |
|                     |               |             | 6000         | 1690         | 2950                     | 1820         | 3225                     | 1970         | 3510                     | 2120         | 3810                     | 2275         | 4130                     |
|                     |               |             | 7000         | 1855         | 3325                     | 2025         | 3625                     | 2170         | 3950                     | 2340         | 4310                     | 2505         | 4695                     |
|                     |               |             | 8000         | 2065         | 3750                     | 2230         | 4125                     | 2405         | 4495                     | 2590         | 4930                     | 2780         | 5430                     |
| 2550                | 51            | 56          | 0            | 860          | 1465                     | 925          | 1575                     | 995          | 1690                     | 1070         | 1810                     | 1150         | 1945                     |
|                     |               |             | 1000         | 940          | 1600                     | 1010         | 1720                     | 1090         | 1850                     | 1170         | 1990                     | 1260         | 2135                     |
|                     |               |             | 2000         | 1025         | 1755                     | 1110         | 1890                     | 1195         | 2035                     | 1285         | 2190                     | 1380         | 2355                     |
|                     |               |             | 3000         | 1125         | 1925                     | 1215         | 2080                     | 1310         | 2240                     | 1410         | 2420                     | 1515         | 2605                     |
|                     |               |             | 4000         | 1235         | 2121                     | 1335         | 2295                     | 1440         | 2480                     | 1550         | 2685                     | 1660         | 2880                     |
|                     |               |             | 5000         | 1355         | 2345                     | 1465         | 2545                     | 1585         | 2755                     | 1705         | 2975                     | 1825         | 3205                     |
|                     |               |             | 6000         | 1495         | 2605                     | 1615         | 2830                     | 1745         | 3075                     | 1875         | 3320                     | 2010         | 3585                     |
|                     |               |             | 7000         | 1645         | 2910                     | 1785         | 3170                     | 1920         | 3440                     | 2065         | 3730                     | 2215         | 4045                     |
|                     |               |             | 8000         | 1820         | 3265                     | 1970         | 3575                     | 2120         | 3880                     | 2280         | 4225                     | 2450         | 4615                     |
| 2400                | 48            | 54          | 0            | 745          | 1275                     | 800          | 1370                     | 860          | 1470                     | 925          | 1570                     | 995          | 1685                     |
|                     |               |             | 1000         | 810          | 1390                     | 875          | 1495                     | 940          | 1605                     | 1010         | 1720                     | 1085         | 1845                     |
|                     |               |             | 2000         | 885          | 1520                     | 955          | 1635                     | 1030         | 1760                     | 1110         | 1890                     | 1190         | 2030                     |
|                     |               |             | 3000         | 970          | 1665                     | 1050         | 1795                     | 1130         | 1930                     | 1215         | 2080                     | 1305         | 2230                     |
|                     |               |             | 4000         | 1065         | 1830                     | 1150         | 1975                     | 1240         | 2130                     | 1335         | 2295                     | 1430         | 2455                     |
|                     |               |             | 5000         | 1170         | 2015                     | 1265         | 2180                     | 1360         | 2355                     | 1465         | 2530                     | 1570         | 2715                     |
|                     |               |             | 6000         | 1285         | 2230                     | 1390         | 2410                     | 1500         | 2610                     | 1610         | 2805                     | 1725         | 3015                     |
|                     |               |             | 7000         | 1415         | 2470                     | 1530         | 2685                     | 1650         | 2900                     | 1770         | 3125                     | 1900         | 3370                     |
|                     |               |             | 8000         | 1560         | 2755                     | 1690         | 3000                     | 1815         | 3240                     | 1950         | 3500                     | 2095         | 3790                     |
| 2200                | 44            | 50          | 0            | 610          | 1055                     | 655          | 1130                     | 705          | 1205                     | 760          | 1290                     | 815          | 1380                     |
|                     |               |             | 1000         | 665          | 1145                     | 720          | 1230                     | 770          | 1315                     | 830          | 1410                     | 890          | 1505                     |
|                     |               |             | 2000         | 725          | 1250                     | 785          | 1340                     | 845          | 1435                     | 905          | 1540                     | 975          | 1650                     |
|                     |               |             | 3000         | 795          | 1365                     | 860          | 1465                     | 925          | 1570                     | 995          | 1685                     | 1065         | 1805                     |
|                     |               |             | 4000         | 870          | 1490                     | 940          | 1605                     | 1010         | 1725                     | 1090         | 1855                     | 1165         | 1975                     |
|                     |               |             | 5000         | 955          | 1635                     | 1030         | 1765                     | 1110         | 1900                     | 1195         | 2035                     | 1275         | 2175                     |
|                     |               |             | 6000         | 1050         | 1800                     | 1130         | 1940                     | 1220         | 2090                     | 1310         | 2240                     | 1400         | 2395                     |
|                     |               |             | 7000         | 1150         | 1985                     | 1245         | 2145                     | 1340         | 2305                     | 1435         | 2475                     | 1540         | 2650                     |
|                     |               |             | 8000         | 1270         | 2195                     | 1370         | 2375                     | 1475         | 2555                     | 1580         | 2745                     | 1695         | 2950                     |

- NOTES: 1. Short field technique as specified in Section 4 of AFM.  
 2. Prior to takeoff from fields above 3000 ft elevation, the mixture should be leaned to give maximum RPM at full throttle, static runup.  
 3. Decrease distances 10% for each 9 knots headwind. For operation with tailwinds to 10 knots increase distances by 10% for each 2 knots.  
 4. For operation on a dry, grass runway, increase distances by 15% of the "ground roll" figure.

#### Landing Performance

**Increase landing distance by 10% with WingExtensions installed.**

## Section 6 – WEIGHT AND BALANCE

### 172R (180 HP)

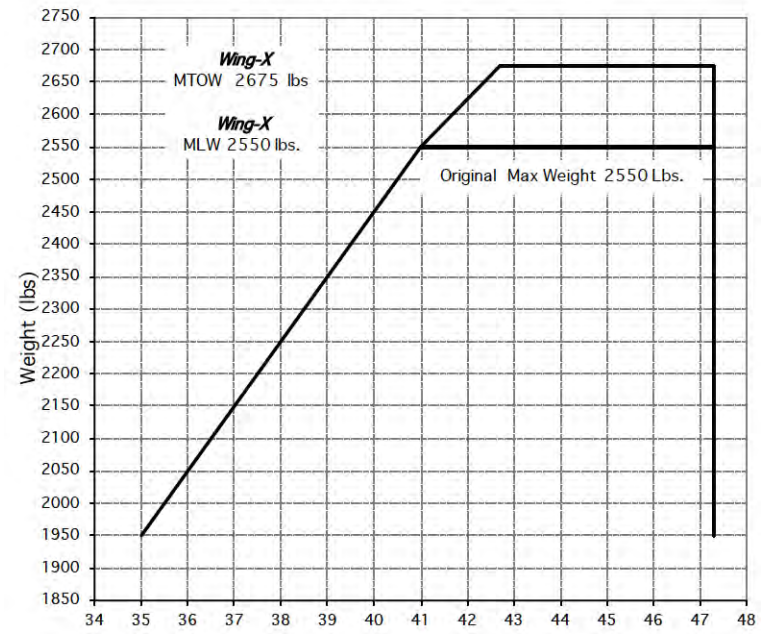
**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.

Cessna 172R LANDPLANE 180 HP with *Wing-X*



CG Limits (inches aft of datum)  
With wing extensions installed OPERATE IN NORMAL CATEGORY ONLY



## Section 5 – PERFORMANCE 172S

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

### Takeoff Performance

**TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY WITH FLAPS 10°  
CESSNA 172R (180 HP), 172S  
SHADED CELLS ARE AFM DATA**

| GROSS WEIGHT POUNDS | TAKEOFF SPEED |             | PRESS ALT FT | 0°C          |                          | 10°C         |                          | 20°C         |                          | 30°C         |                          | 40°C         |                          |
|---------------------|---------------|-------------|--------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|
|                     | LIFT OFF KIAS | AT 50' KIAS |              | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS |
| 2675                | 54            | 58          | 0            | 965          | 1640                     | 1040         | 1760                     | 1120         | 1885                     | 1205         | 2030                     | 1290         | 2180                     |
|                     |               |             | 1000         | 1060         | 1790                     | 1135         | 1925                     | 1230         | 2070                     | 1320         | 2240                     | 1425         | 2400                     |
|                     |               |             | 2000         | 1155         | 1970                     | 1255         | 2125                     | 1350         | 2285                     | 1445         | 2465                     | 1555         | 2650                     |
|                     |               |             | 3000         | 1270         | 2165                     | 1365         | 2340                     | 1475         | 2525                     | 1590         | 2730                     | 1710         | 2955                     |
|                     |               |             | 4000         | 1390         | 2385                     | 1505         | 2590                     | 1625         | 2800                     | 1750         | 3050                     | 1870         | 3275                     |
|                     |               |             | 5000         | 1525         | 2650                     | 1645         | 2885                     | 1795         | 3125                     | 1930         | 3395                     | 2060         | 3670                     |
|                     |               |             | 6000         | 1690         | 2950                     | 1820         | 3225                     | 1970         | 3510                     | 2120         | 3810                     | 2275         | 4130                     |
|                     |               |             | 7000         | 1855         | 3325                     | 2025         | 3625                     | 2170         | 3950                     | 2340         | 4310                     | 2505         | 4695                     |
|                     |               |             | 8000         | 2065         | 3750                     | 2230         | 4125                     | 2405         | 4495                     | 2590         | 4930                     | 2780         | 5430                     |
| 2550                | 51            | 56          | 0            | 860          | 1465                     | 925          | 1575                     | 995          | 1690                     | 1070         | 1810                     | 1150         | 1945                     |
|                     |               |             | 1000         | 940          | 1600                     | 1010         | 1720                     | 1090         | 1850                     | 1170         | 1990                     | 1260         | 2135                     |
|                     |               |             | 2000         | 1025         | 1755                     | 1110         | 1890                     | 1195         | 2035                     | 1285         | 2190                     | 1380         | 2355                     |
|                     |               |             | 3000         | 1125         | 1925                     | 1215         | 2080                     | 1310         | 2240                     | 1410         | 2420                     | 1515         | 2605                     |
|                     |               |             | 4000         | 1235         | 2121                     | 1335         | 2295                     | 1440         | 2480                     | 1550         | 2685                     | 1660         | 2880                     |
|                     |               |             | 5000         | 1355         | 2345                     | 1465         | 2545                     | 1585         | 2755                     | 1705         | 2975                     | 1825         | 3205                     |
|                     |               |             | 6000         | 1495         | 2605                     | 1615         | 2830                     | 1745         | 3075                     | 1875         | 3320                     | 2010         | 3585                     |
|                     |               |             | 7000         | 1645         | 2910                     | 1785         | 3170                     | 1920         | 3440                     | 2065         | 3730                     | 2215         | 4045                     |
|                     |               |             | 8000         | 1820         | 3265                     | 1970         | 3575                     | 2120         | 3880                     | 2280         | 4225                     | 2450         | 4615                     |
| 2400                | 48            | 54          | 0            | 745          | 1275                     | 800          | 1370                     | 860          | 1470                     | 925          | 1570                     | 995          | 1685                     |
|                     |               |             | 1000         | 810          | 1390                     | 875          | 1495                     | 940          | 1605                     | 1010         | 1720                     | 1085         | 1845                     |
|                     |               |             | 2000         | 885          | 1520                     | 955          | 1635                     | 1030         | 1760                     | 1110         | 1890                     | 1190         | 2030                     |
|                     |               |             | 3000         | 970          | 1665                     | 1050         | 1795                     | 1130         | 1930                     | 1215         | 2080                     | 1305         | 2230                     |
|                     |               |             | 4000         | 1065         | 1830                     | 1150         | 1975                     | 1240         | 2130                     | 1335         | 2295                     | 1430         | 2455                     |
|                     |               |             | 5000         | 1170         | 2015                     | 1265         | 2180                     | 1360         | 2355                     | 1465         | 2530                     | 1570         | 2715                     |
|                     |               |             | 6000         | 1285         | 2230                     | 1390         | 2410                     | 1500         | 2610                     | 1610         | 2805                     | 1725         | 3015                     |
|                     |               |             | 7000         | 1415         | 2470                     | 1530         | 2685                     | 1650         | 2900                     | 1770         | 3125                     | 1900         | 3370                     |
|                     |               |             | 8000         | 1560         | 2755                     | 1690         | 3000                     | 1815         | 3240                     | 1950         | 3500                     | 2095         | 3790                     |
| 2200                | 44            | 50          | 0            | 610          | 1055                     | 655          | 1130                     | 705          | 1205                     | 760          | 1290                     | 815          | 1380                     |
|                     |               |             | 1000         | 665          | 1145                     | 720          | 1230                     | 770          | 1315                     | 830          | 1410                     | 890          | 1505                     |
|                     |               |             | 2000         | 725          | 1250                     | 785          | 1340                     | 845          | 1435                     | 905          | 1540                     | 975          | 1650                     |
|                     |               |             | 3000         | 795          | 1365                     | 860          | 1465                     | 925          | 1570                     | 995          | 1685                     | 1065         | 1805                     |
|                     |               |             | 4000         | 870          | 1490                     | 940          | 1605                     | 1010         | 1725                     | 1090         | 1855                     | 1165         | 1975                     |
|                     |               |             | 5000         | 955          | 1635                     | 1030         | 1765                     | 1110         | 1900                     | 1195         | 2035                     | 1275         | 2175                     |
|                     |               |             | 6000         | 1050         | 1800                     | 1130         | 1940                     | 1220         | 2090                     | 1310         | 2240                     | 1400         | 2395                     |
|                     |               |             | 7000         | 1150         | 1985                     | 1245         | 2145                     | 1340         | 2305                     | 1435         | 2475                     | 1540         | 2650                     |
|                     |               |             | 8000         | 1270         | 2195                     | 1370         | 2375                     | 1475         | 2555                     | 1580         | 2745                     | 1695         | 2950                     |

- NOTES: 1. Short field technique as specified in Section 4 of AFM.  
 2. Prior to takeoff from fields above 3000 ft elevation, the mixture should be leaned to give maximum RPM at full throttle, static runup.  
 3. Decrease distances 10% for each 9 knots headwind. For operation with tailwinds to 10 knots increase distances by 10% for each 2 knots.  
 4. For operation on a dry, grass runway, increase distances by 15% of the "ground roll" figure.

### Landing Performance

**Increase landing distance by 10% with WingExtensions installed.**

## Section 6 – WEIGHT AND BALANCE 172S

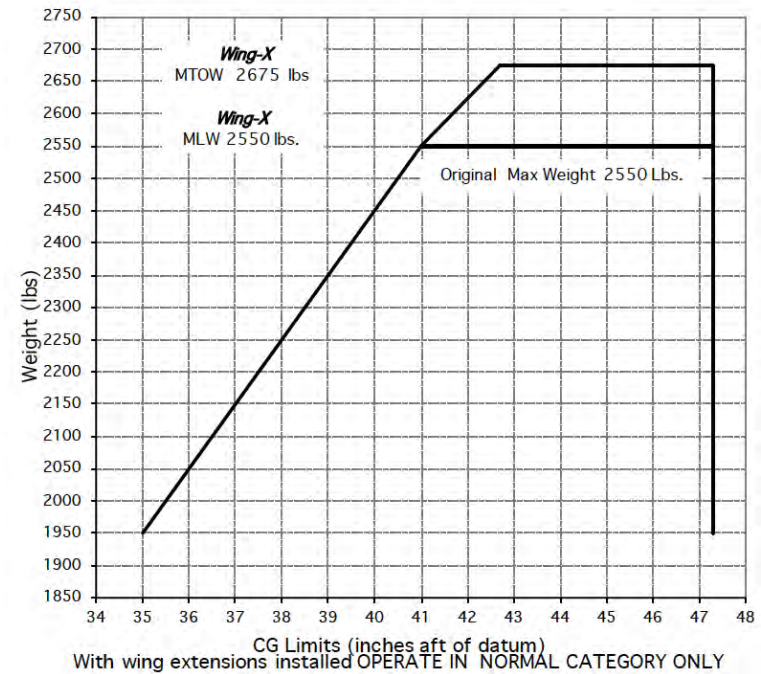
**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.

Cessna 172S LANDPLANE 180 HP with *Wing-X*



## Section 5 – PERFORMANCE

### P172D

#### CAUTION: USE PAGE APPLICABLE TO YOUR MODEL

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

The stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

The takeoff distances are approximately the same as the basic aircraft. Refer to the applicable Pilot / Flight Operating Manual.

#### Landing Performance

Increase landing distance by 10% with *WingExtensions* installed.

Section 6 – WEIGHT AND BALANCE

P172D

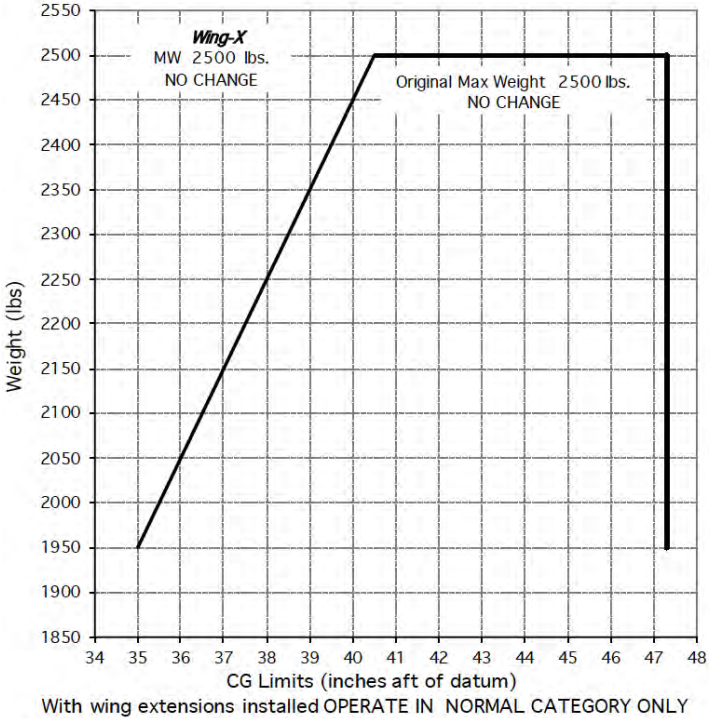
CAUTION: USE PAGE APPLICABLE TO YOUR MODEL

Installation of WingExtensions has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| WingExtensions (LH + RH)              | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult WingExtension and Spar Reinforcement Installation Guide #172 for details.

Cessna P172D LANDPLANE 175 HP with Wing-X



## Section 5 – PERFORMANCE

### 175

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

**TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY WITH FLAPS UP  
CESSNA 175, 175A, 175B  
SHADED CELLS ARE AFM DATA**

| GROSS WEIGHT POUNDS | IAS AT 50' MPH | HEAD WIND KNOTS | AT SEA LEVEL & 59°F |                          | AT 2500 FT & 50°F |                          | AT 5000 FT & 41°F |                          | AT 7500 FT & 32°F |                          |
|---------------------|----------------|-----------------|---------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|
|                     |                |                 | GROUND RUN          | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS |
| 1700                | 51             | 0               | 345                 | 680                      | 410               | 805                      | 490               | 940                      | 595               | 1130                     |
|                     |                | 10              | 180                 | 420                      | 220               | 505                      | 265               | 600                      | 335               | 735                      |
|                     |                | 20              | 65                  | 210                      | 85                | 265                      | 110               | 320                      | 145               | 405                      |
| 2000                | 55             | 0               | 495                 | 950                      | 595               | 1120                     | 715               | 1330                     | 870               | 1560                     |
|                     |                | 10              | 270                 | 625                      | 335               | 725                      | 410               | 880                      | 515               | 1045                     |
|                     |                | 20              | 110                 | 330                      | 145               | 405                      | 185               | 505                      | 245               | 615                      |
| 2350                | 60             | 0               | 735                 | 1340                     | 875               | 1595                     | 1040              | 1980                     | 1295              | 2570                     |
|                     |                | 10              | 420                 | 875                      | 515               | 1065                     | 630               | 1345                     | 800               | 1720                     |
|                     |                | 20              | 190                 | 535                      | 245               | 630                      | 315               | 820                      | 415               | 1090                     |
| 2450                | 61             | 0               | 815                 | 1465                     | 970               | 1750                     | 1145              | 2205                     | 1435              | 2960                     |
|                     |                | 10              | 470                 | 950                      | 575               | 1180                     | 705               | 1505                     | 895               | 1975                     |
|                     |                | 20              | 220                 | 605                      | 280               | 705                      | 360               | 930                      | 475               | 1270                     |

NOTES: 1. Increase distance 10% for each 25°F above standard temperature for a particular altitude.  
2. Shaded values are original (unchanged) Cessna data and are supplied for reference.

#### Landing Performance

Increase landing distance by 10% with WingExtensions installed.

Section 6 – WEIGHT AND BALANCE

175

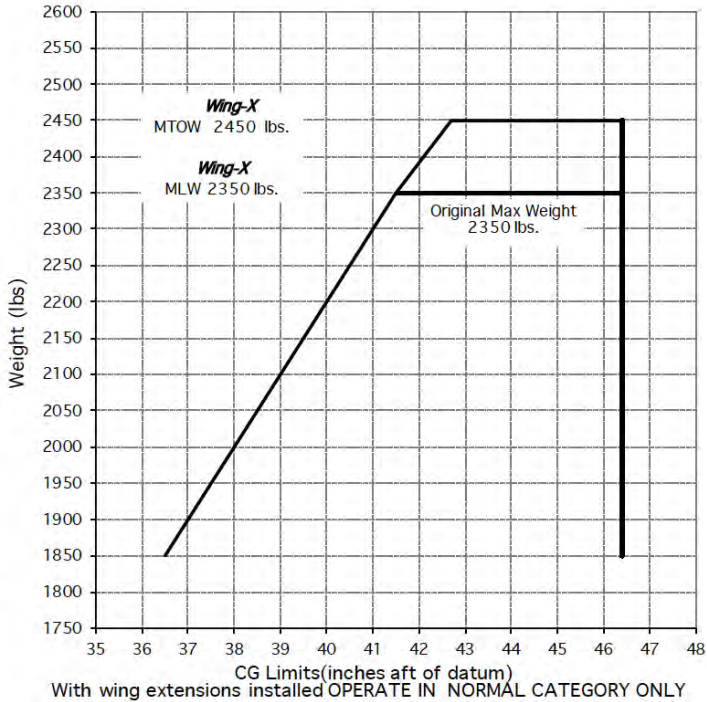
CAUTION: USE PAGE APPLICABLE TO YOUR MODEL

Installation of WingExtensions has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| WingExtensions (LH + RH)              | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult WingExtension and Spar Reinforcement Installation Guide #172 for details.

Cessna 175 LANDPLANE 175 HP with Wing-X



## Section 5 – PERFORMANCE

### 175A, 175B

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

**TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY WITH FLAPS UP  
CESSNA 175, 175A, 175B  
SHADED CELLS ARE AFM DATA**

| GROSS WEIGHT POUNDS | IAS AT 50' MPH | HEAD WIND KNOTS | AT SEA LEVEL & 59°F |                          | AT 2500 FT & 50°F |                          | AT 5000 FT & 41°F |                          | AT 7500 FT & 32°F |                          |
|---------------------|----------------|-----------------|---------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|
|                     |                |                 | GROUND RUN          | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS |
| 1700                | 51             | 0               | 345                 | 680                      | 410               | 805                      | 490               | 940                      | 595               | 1130                     |
|                     |                | 10              | 180                 | 420                      | 220               | 505                      | 265               | 600                      | 335               | 735                      |
|                     |                | 20              | 65                  | 210                      | 85                | 265                      | 110               | 320                      | 145               | 405                      |
| 2000                | 55             | 0               | 495                 | 950                      | 595               | 1120                     | 715               | 1330                     | 870               | 1560                     |
|                     |                | 10              | 270                 | 625                      | 335               | 725                      | 410               | 880                      | 515               | 1045                     |
|                     |                | 20              | 110                 | 330                      | 145               | 405                      | 185               | 505                      | 245               | 615                      |
| 2350                | 60             | 0               | 735                 | 1340                     | 875               | 1595                     | 1040              | 1980                     | 1295              | 2570                     |
|                     |                | 10              | 420                 | 875                      | 515               | 1065                     | 630               | 1345                     | 800               | 1720                     |
|                     |                | 20              | 190                 | 535                      | 245               | 630                      | 315               | 820                      | 415               | 1090                     |
| 2450                | 61             | 0               | 815                 | 1465                     | 970               | 1750                     | 1145              | 2205                     | 1435              | 2960                     |
|                     |                | 10              | 470                 | 950                      | 575               | 1180                     | 705               | 1505                     | 895               | 1975                     |
|                     |                | 20              | 220                 | 605                      | 280               | 705                      | 360               | 930                      | 475               | 1270                     |

NOTES: 1. Increase distance 10% for each 25°F above standard temperature for a particular altitude.  
2. Shaded values are original (unchanged) Cessna data and are supplied for reference.

#### Landing Performance

Increase landing distance by 10% with WingExtensions installed.

Section 6 – WEIGHT AND BALANCE

175A, 175B

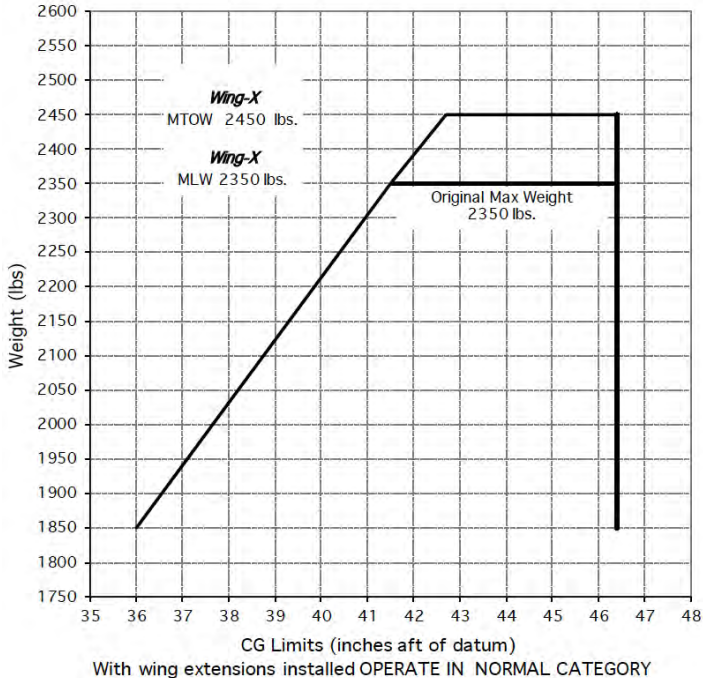
CAUTION: USE PAGE APPLICABLE TO YOUR MODEL

Installation of WingExtensions has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| WingExtensions (LH + RH)              | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult WingExtension and Spar Reinforcement Installation Guide #172 for details.

Cessna 175A and 175B LANDPLANE 175 HP with Wing-X





## Section 5 – PERFORMANCE

### 175C

#### CAUTION: USE PAGE APPLICABLE TO YOUR MODEL

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

The stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

The takeoff distances are approximately the same as the basic aircraft. Refer to the applicable Pilot / Flight Operating Manual.

#### Landing Performance

Increase landing distance by 10% with *WingExtensions* installed.

## Section 6 – WEIGHT AND BALANCE

### 175C

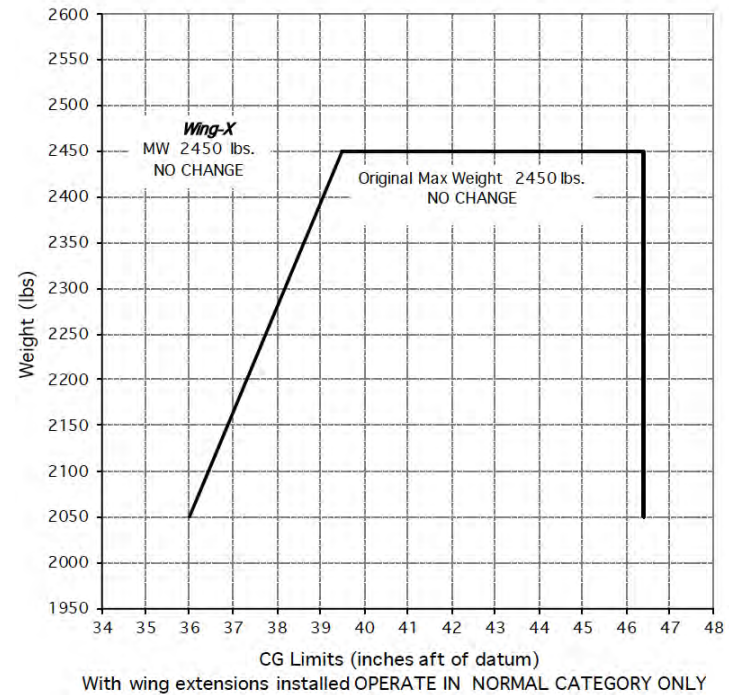
**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.

Cessna 175C LANDPLANE 175 HP with *Wing-X*



## Section 5 – PERFORMANCE

### R172E, R172F

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

**TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY WITH FLAPS 10°  
CESSNA R172E, R172F**

SHADED CELLS ARE AFM DATA data source: T-41C page A7

| GROSS WEIGHT POUNDS | IAS AT 50' MPH | HEAD WIND KNOTS | AT SEA LEVEL & 59°F |                          | AT 2500 FT & 50°F |                          | AT 5000 FT & 41°F |                          | AT 7500 FT & 32°F |                          |
|---------------------|----------------|-----------------|---------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|
|                     |                |                 | GROUND RUN          | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS |
| 2625                | 72             | 0               | 960                 | 1505                     | 1115              | 1720                     | 1270              | 1965                     | 1605              | 2490                     |
|                     |                | 10              | 685                 | 1130                     | 800               | 1315                     | 925               | 1515                     | 1165              | 1960                     |
|                     |                | 20              | 445                 | 810                      | 535               | 945                      | 630               | 1110                     | 840               | 1445                     |
| 2500                | 70             | 0               | 860                 | 1360                     | 1000              | 1555                     | 1135              | 1765                     | 1435              | 2225                     |
|                     |                | 10              | 605                 | 1020                     | 710               | 1175                     | 820               | 1350                     | 1050              | 1730                     |
|                     |                | 20              | 390                 | 720                      | 470               | 840                      | 550               | 980                      | 730               | 1270                     |
| 2200                | 66             | 0               | 645                 | 1055                     | 750               | 1200                     | 845               | 1340                     | 1070              | 1670                     |
|                     |                | 10              | 440                 | 780                      | 520               | 890                      | 595               | 1005                     | 785               | 1265                     |
|                     |                | 20              | 275                 | 535                      | 330               | 620                      | 385               | 715                      | 505               | 910                      |
| 1900                | 61             | 0               | 470                 | 805                      | 540               | 905                      | 610               | 1000                     | 770               | 1230                     |
|                     |                | 10              | 310                 | 580                      | 365               | 680                      | 415               | 740                      | 535               | 915                      |
|                     |                | 20              | 180                 | 390                      | 220               | 445                      | 260               | 510                      | 340               | 640                      |

NOTES: 1. Increase distance 10% for each 25°F above standard temperature for a particular altitude.  
2. Shaded values are original (unchanged) Cessna data and are supplied for reference.  
These values were adjusted from AFM table because provided values were illogical.

#### Landing Performance

Increase landing distance by 10% with WingExtensions installed.

## Section 6 – WEIGHT AND BALANCE

### R172E, R172F

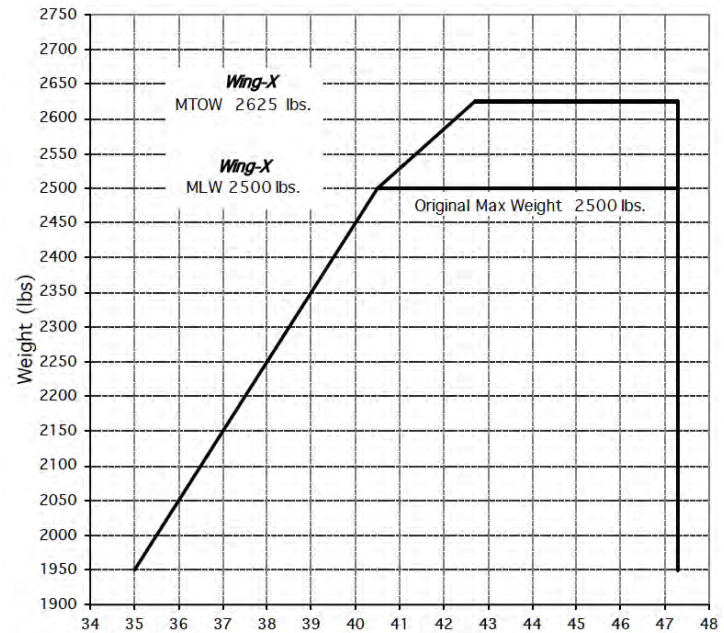
**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.

Cessna R172E and R172F LANDPLANE 210 HP with *Wing-X*



CG is depicted in (inches aft of datum)

With wing extensions installed OPERATE IN NORMAL CATEGORY ONLY

## Section 5 – PERFORMANCE

### R172G, R172J

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

**TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY WITH FLAPS 10°  
CESSNA R172G, R172J**

SHADED CELLS ARE AFM DATA data source: T-41D page A9

| GROSS WEIGHT POUNDS | IAS AT 50' MPH | HEAD WIND KNOTS | AT SEA LEVEL & 59°F |                          | AT 2500 FT & 50°F |                          | AT 5000 FT & 41°F |                          | AT 7500 FT & 32°F |                          |
|---------------------|----------------|-----------------|---------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|
|                     |                |                 | GROUND RUN          | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS | GROUND RUN        | TOTAL TO CLEAR 50 FT OBS |
| 2675                | 73             | 0               | 830                 | 1360                     | 985               | 1590                     | 1190              | 1920                     | 1445              | 2345                     |
|                     |                | 10              | 585                 | 1020                     | 710               | 1225                     | 870               | 1490                     | 1065              | 1835                     |
|                     |                | 20              | 380                 | 735                      | 475               | 895                      | 595               | 1100                     | 750               | 1385                     |
| 2550                | 71             | 0               | 740                 | 1230                     | 880               | 1440                     | 1065              | 1725                     | 1290              | 2095                     |
|                     |                | 10              | 520                 | 925                      | 630               | 1100                     | 770               | 1330                     | 945               | 1630                     |
|                     |                | 20              | 335                 | 660                      | 415               | 795                      | 520               | 975                      | 655               | 1215                     |
| 2200                | 66             | 0               | 525                 | 920                      | 625               | 1070                     | 755               | 1255                     | 910               | 1495                     |
|                     |                | 10              | 360                 | 685                      | 435               | 800                      | 530               | 950                      | 650               | 1140                     |
|                     |                | 20              | 225                 | 475                      | 275               | 560                      | 345               | 680                      | 430               | 825                      |
| 1900                | 61             | 0               | 380                 | 710                      | 450               | 810                      | 540               | 940                      | 650               | 1105                     |
|                     |                | 10              | 250                 | 515                      | 305               | 595                      | 370               | 700                      | 450               | 825                      |
|                     |                | 20              | 150                 | 350                      | 185               | 410                      | 230               | 485                      | 285               | 585                      |

NOTES: 1. Increase distance 10% for each 25°F above standard temperature for a particular altitude.  
2. Shaded values are original (unchanged) Cessna data and are supplied for reference.

#### Landing Performance

Increase landing distance by 10% with WingExtensions installed.

## Section 6 – WEIGHT AND BALANCE

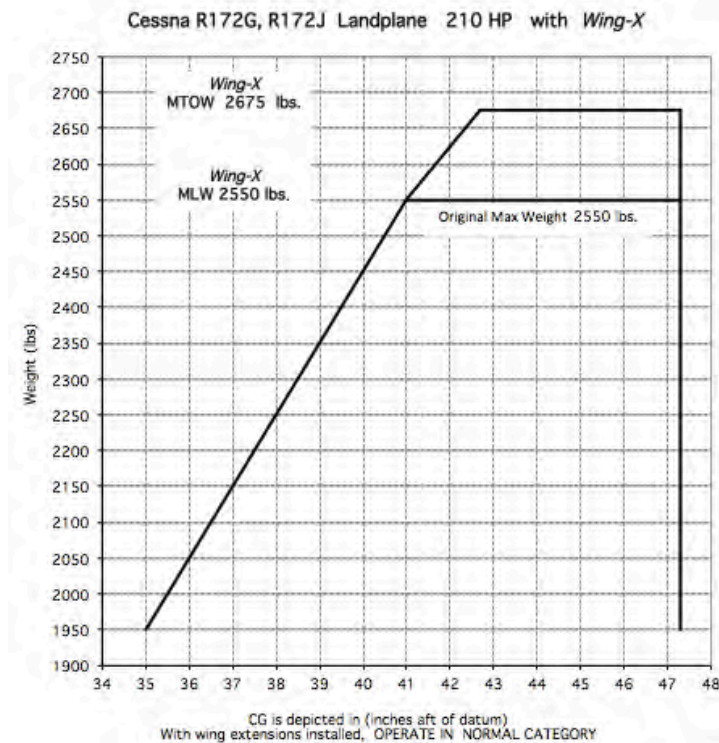
### R172G, R172J

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.



## Section 5 – PERFORMANCE

### R172H

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

The stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

The takeoff distances are approximately the same as the basic aircraft. Refer to the applicable Pilot / Flight Operating Manual.

#### Landing Performance

Increase landing distance by 10% with *WingExtensions* installed.

## Section 6 – WEIGHT AND BALANCE

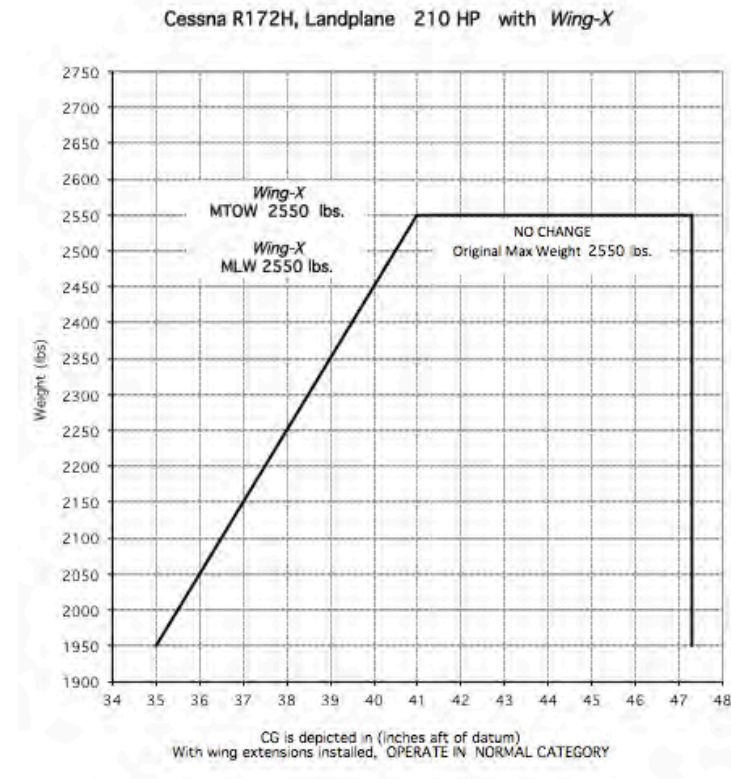
### R172H

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.





## Section 5 – PERFORMANCE

### R172K

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

When operating at weights above the original gross weight limit, the stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY WITH FLAPS 10°  
CESSNA R172K

| GROSS WEIGHT POUNDS | TAKEOFF SPEED |             | PRESS ALT FT | SHADED CELLS ARE AFM DATA |                          |              |                          |              |                          |              |                          |              |                          |              |                          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------|---------------|-------------|--------------|---------------------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                     | LIFT OFF KIAS | AT 50' KIAS |              | 0°C                       |                          |              |                          | 10°C         |                          |              |                          | 20°C         |                          |              |                          | 30°C |      |      |      | 40°C |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|                     |               |             |              | GRND ROLL FT              | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS | GRND ROLL FT | TOTAL TO CLEAR 50 FT OBS |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2675                | 57            | 61          | 0            | 800                       | 1360                     | 860          | 1465                     | 930          | 1575                     | 1005         | 1680                     | 1070         | 1815                     | 0            | 715                      | 1225 | 770  | 1315 | 830  | 1410 | 895  | 1510 | 960  | 1625 | 0    | 620  | 1070 | 670  | 1145 | 720  | 1225 | 775  | 1315 | 835  | 1410 | 0    | 510  | 880  | 550  | 940  | 590  | 1005 | 635  | 1075 | 680  | 1150 |
|                     |               |             | 1000         | 865                       | 1485                     | 940          | 1600                     | 1005         | 1715                     | 1090         | 1855                     | 1175         | 1995                     | 1000         | 780                      | 1335 | 840  | 1435 | 905  | 1540 | 975  | 1655 | 1050 | 1780 | 1000 | 680  | 1165 | 730  | 1250 | 790  | 1340 | 845  | 1435 | 910  | 1540 | 1000 | 555  | 955  | 600  | 1025 | 645  | 1095 | 690  | 1175 | 740  | 1255 |
|                     |               |             | 2000         | 960                       | 1630                     | 1025         | 1750                     | 1120         | 1890                     | 1200         | 2040                     | 1290         | 2205                     | 2000         | 855                      | 1460 | 920  | 1570 | 995  | 1690 | 1070 | 1820 | 1150 | 1960 | 2000 | 740  | 1270 | 800  | 1365 | 860  | 1465 | 925  | 1575 | 995  | 1690 | 2000 | 605  | 1040 | 655  | 1115 | 705  | 1195 | 755  | 1280 | 810  | 1370 |
|                     |               |             | 3000         | 1045                      | 1785                     | 1130         | 1930                     | 1220         | 2090                     | 1320         | 2250                     | 1415         | 2440                     | 3000         | 935                      | 1600 | 1010 | 1725 | 1090 | 1860 | 1175 | 2005 | 1265 | 2165 | 3000 | 810  | 1390 | 875  | 1495 | 945  | 1605 | 1015 | 1730 | 1095 | 1860 | 3000 | 660  | 1135 | 715  | 1215 | 770  | 1305 | 825  | 1400 | 890  | 1500 |
|                     |               |             | 4000         | 1145                      | 1980                     | 1245         | 2135                     | 1335         | 2320                     | 1445         | 2505                     | 1560         | 2725                     | 4000         | 1025                     | 1760 | 1110 | 1900 | 1195 | 2055 | 1290 | 2220 | 1390 | 2405 | 4000 | 890  | 1520 | 960  | 1640 | 1035 | 1765 | 1115 | 1905 | 1200 | 2055 | 4000 | 725  | 1240 | 780  | 1330 | 840  | 1430 | 905  | 1535 | 975  | 1650 |
|                     |               |             | 5000         | 1260                      | 2190                     | 1365         | 2380                     | 1480         | 2585                     | 1595         | 2800                     | 1720         | 3060                     | 5000         | 1125                     | 1945 | 1220 | 2105 | 1315 | 2280 | 1420 | 2470 | 1530 | 2685 | 5000 | 975  | 1675 | 1055 | 1805 | 1135 | 1950 | 1225 | 2110 | 1320 | 2280 | 5000 | 795  | 1355 | 855  | 1460 | 925  | 1570 | 995  | 1690 | 1070 | 1820 |
|                     |               |             | 6000         | 1395                      | 2430                     | 1500         | 2650                     | 1630         | 2885                     | 1760         | 3155                     | 1900         | 3460                     | 6000         | 1240                     | 2155 | 1340 | 2340 | 1450 | 2540 | 1565 | 2765 | 1690 | 3015 | 6000 | 1070 | 1850 | 1160 | 2000 | 1250 | 2165 | 1350 | 2345 | 1455 | 2540 | 6000 | 870  | 1490 | 940  | 1605 | 1015 | 1730 | 1095 | 1865 | 1175 | 2010 |
|                     |               |             | 7000         | 1530                      | 2735                     | 1665         | 2980                     | 1795         | 3260                     | 1945         | 3580                     | 2100         | 3955                     | 7000         | 1365                     | 2405 | 1480 | 2615 | 1600 | 2850 | 1730 | 3115 | 1870 | 3415 | 7000 | 1180 | 2050 | 1275 | 2220 | 1380 | 2410 | 1490 | 2620 | 1610 | 2850 | 7000 | 955  | 1645 | 1035 | 1770 | 1115 | 1915 | 1205 | 2065 | 1295 | 2235 |
|                     |               |             | 8000         | 1690                      | 3085                     | 1835         | 3385                     | 1990         | 3725                     | 2150         | 4110                     | 2340         | 4595                     | 8000         | 1510                     | 2695 | 1635 | 2945 | 1770 | 3225 | 1915 | 3545 | 2075 | 3920 | 8000 | 1305 | 2280 | 1410 | 2480 | 1525 | 2700 | 1650 | 2950 | 1780 | 3225 | 8000 | 1055 | 1815 | 1140 | 1965 | 1230 | 2125 | 1330 | 2300 | 1430 | 2495 |

- NOTES: 1. Short field technique as specified in Section 4 of AFM.  
 2. Prior to takeoff from fields above 3000 ft elevation, the mixture should be leaned to give maximum RPM at full throttle, static runup.  
 3. Decrease distances 10% for each 9 knots headwind. For operation with tailwinds to 10 knots increase distances by 10% for each 2 knots.  
 4. For operation on a dry, grass runway, increase distances by 15% of the "ground roll" figure.

#### Landing Performance

Increase landing distance by 10% with WingExtensions installed.

Section 6 – WEIGHT AND BALANCE

R172K

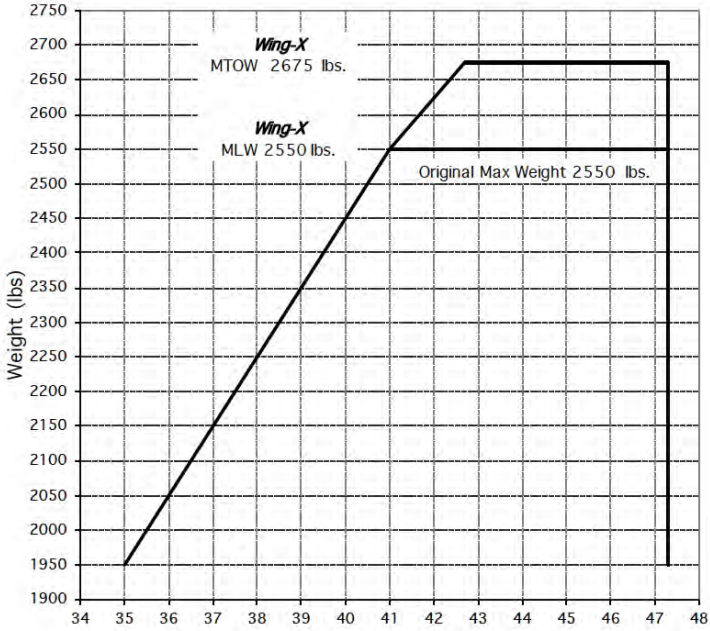
CAUTION: USE PAGE APPLICABLE TO YOUR MODEL

Installation of WingExtensions has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| WingExtensions (LH + RH)              | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult WingExtension and Spar Reinforcement Installation Guide #172 for details.

Cessna R172K LANDPLANE 195 HP with Wing-X



CG Limits (inches aft of datum)  
With wing extensions installed OPERATE IN NORMAL CATEGORY ONLY

## Section 5 – PERFORMANCE

### 172RG

#### CAUTION: USE PAGE APPLICABLE TO YOUR MODEL

The information found in the basic airplane Flight / Operating Manual applies for both landplane and seaplane configurations, except as listed below.

#### Stall Speeds

The stalling speeds are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot / Flight Operating Manual.

#### Takeoff Performance

The takeoff distances are approximately the same as the basic aircraft. Refer to the applicable Pilot / Flight Operating Manual.

#### Landing Performance

Increase landing distance by 10% with *WingExtensions* installed.

# Section 6 – WEIGHT AND BALANCE 172RG

**CAUTION: USE PAGE APPLICABLE TO YOUR MODEL**

Installation of *WingExtensions* has the following effect on the empty weight of the aircraft.

| Item                                  | Weight (lbs) | Arm (in) | Moment (lb.in.) |
|---------------------------------------|--------------|----------|-----------------|
| <i>WingExtensions</i> (LH + RH)       | 16.0         | 52.0     | 832             |
| Internal Reinforcements               | 1.0          | 36.0     | 36              |
| Stainless Steel Straps (if required)* | 1.0          | 36.0     | 36              |

\* some wings require installation of an external stainless steel strap at wing station 100. Consult *WingExtension* and Spar Reinforcement Installation Guide #172 for details.

