### **Models and Differences**

The Cessna 172 had a number of type variants during its production history. Additionally there are a number of modifications provided for the airframe, instruments/avionics equipment and electrics.

Speeds often vary between models by one or two knots, sometimes more for significant type variants. For simplification the speeds have been provided for the C172 Skyhawk, which was produced in the largest numbers. All speeds have been converted to knots and rounded up to the nearest 5kts. Generally multiple provision of figures can lead to confusion for memory items and this application is safer for practical use during conversion training.

# Whenever maximum performance is required, as speeds also vary with weight, and density altitude the Aircraft Operating Handbook must be consulted for the correct figure.

During practical training reference should be made to the flight manual of the aeroplane you will be flying to ensure that the limitations applicable for that aeroplane are adhered to. Likewise when flying different models it should always be remembered that MAUW, flap limitations, engine limitations and speeds may vary from model to model.

# \*\* Before flying different models, the Aircraft Operating Handbook should be consulted to verify differences.

#### Main Differences in year of manufacturing

The following modification of Cessna 172 were made during years of production of the aircraft:

- The 1957 model has a 145hp Continental engine;
- Model's after 1960 have a swept tail;
- In 1963 a rear window appeared as well as a single piece windshield and longer elevator;
- 1964 model were equipped with electric flaps instead of the "Johnson Bar";
- 1968 models switched to Lycoming 150hp engines.
- In 1971 the spring steel main landing gear was changed to tubular steel.
- In 1981 Cessna switched to a 160-hp engine and gross weight of 2400lbs but reduced flap travel of 30 degrees.
- 1996 and later models feature the Lycoming IO-360-L2A four cylinder, fuel injected engine, an annunciator panel or optional Garmin G1000 EFIS avionics suit.

A more comprehensive summary combined with serial numbers and model numbers is contained in the table on the following pages.

# **Naming Terminology**

The C172 series manufactured by Cessna in Wichita, like most Cessna models, started with the C172 followed by the C172A and continued sequentially up until the C172 R and S, with the exception of the models J and O which never completed certification. Each new model release superseding the previous, with the exception of model variants (such as the 172RG and R172K).

#### **Model Variants**

Some models carried an alternate prefix or suffix to designate a specific difference, or model variant as detailed below.

#### **Reims 172**

The F172 for models D through M, was made by Reims in France, and according to Cessna there are no significant differences apart from the engines on models prior to 1971 (F172K and earlier), however there are some differences in manufacturing processes.

#### **Cessna 175 Certified Aircraft**

Although marketed as a C172, the P172D, F172/FR172 and C172RG were all designated under the C175 type data certification sheet by the FAA.

The P172D, where the 'P' indicated the geared engine referred to as "Powermatic" by Cessna. The different type designator also reflected a larger distinction, the aircraft is nearly identical to the C175C and treated as such for certification, it has little in common with the C172D except the year of manufacture (1963).

The C172 RG – where the 'RG' designated a retractable Cessna as with other models of Cessna. Produced between 1981 and 1985, the RG option was not reintroduced when production commenced in 1996.

The prefix 'R' was originally given to the 210hp military version C172, made specifically for the US Air Force, and should not be confused with the Reims ('F') models or the retractable ('RG') models. The original military R172 was produced for models R172E through to R172H, between 1964 and 1973, called by the USAF a T41-B, C or D, depending on options (the C172H, originally made for the USAF was called the T41-A). Most models retired into USAF aeroclubs, a few are in civilian use, and some still remain in US and other air force operations. These models led to the development of a civilian version, the R172K given the name Hawk XP and the FR172K, Reims Hawk XP or Reims Rocket, with the same engine de-rated to 195hp, produced between 1977 and 1981.

# **Model History Table**

The table below summarises the model history versus serial number compiled from the type data certification summaries (TDC) and from the technical information in the Cessna maintenance manuals.

| Model | Name  | Year | Serial<br>Numbers                   | Significant Changes and Features  |
|-------|---|------|-------------------------------------|---|
| C172  |   | 1956 | 28000-<br>29174                     | The first model C172, which was basically a Cessna 170B with tricycle gear,   |
|       |   | 1957 | 29175-<br>29999,<br>36000-<br>36215 | distinctive straight windowless back, square vertical tail, and manual flap, the Continental 6 cylinder O-300-A or B engine producing 145hp at 2700hp 42USG fuel tank (37USG usable),   |
|       |   | 1958 | 36216-<br>36965                     | maximum weight of 2200lbs for the lad plane, the seaplane was increased to 2220lbs where it remained through the C172 model history.  |
|       |   | 1959 | 36966-<br>36999,<br>46001-<br>46754 | Engine cowling changed for improved cooling, instrument panel modified, moving main flight control instruments from central to left side of panel, in a more direct line of sight of the pilot.   |
| C172A |   | 1960 | 46755 -<br>47746                    | The same as the basic 172 with a swept vertical tail, and the first float plane version was available. The 0-300 Continental engine was available as a C or D type.   |
| C172B | C172 in<br>standard<br>version<br>and<br>Skyhawk<br>or<br>Skyhawk<br>II for<br>luxury<br>version. | 1961 | 17247747-<br>17248734               | A deeper fuselage (shorter undercarriage), new windshield, revised cowling and pointed propeller spinner as well as external baggage door and another new instrument panel was introduced with the artificial horizon centrally located. Usable fuel 39USG. |
| C172C |   | 1962 | 17248735-<br>17249544               | Maximum weight increased to 2250lbs, optional key starter on deluxe version (replaces standard pull starter), auxiliary child seat available. Usable fuel 36 USG.   |
| C172D |   | 1963 | 17249545-<br>17250572               | Cut-down rear fuselage and "Omnivision" rear windows replaced the original 'straight-back' look, landplane weight increased to 2300lbs, and new full rudder and brake pedals fitted.  |

| Model | Name                      | Year | Serial<br>Numbers       | Significant Changes and Features   |
|-------|---------------------------|------|-------------------------|--|
| F172D | Reims or<br>French<br>172 | 1963 | F1720001-<br>F1720018   | Made by Reims in France, some differences in manufacturing. Continental O-300-D engine manufactured by Rolls Royce.  |
| C172E |                           | 1964 | 17250573-<br>17251822   | Electrical fuses were replaced by circuit breakers.  |
| F172E | Reims or<br>French<br>172 | 1964 | F1720019-<br>F1720085   | Made by Reims in France, some differences in manufacturing.  |
| C172F |                           | 1965 | 17251823-<br>17253392   | Electric flaps were introduced, with a three position toggle switch. This model, along with the C172H was also produced by the USAF as a T41-A.  |
| F172F | Reims or<br>French<br>172 |      | F172-0086-<br>F172-0179 | Made by Reims in France, some differences in manufacturing.  |
| C172G |                           | 1966 | 17253393-<br>17254892   | Minor modifications to propeller shaft and spinner.  |
| F172G | Reims or<br>French<br>172 | 1966 | F1720180-<br>F1720319   | Made by Reims in France, some differences in manufacturing.  |
| C172H |                           | 1967 | 17254893-<br>17256512   | Nose strut shortened for reduced drag and appearance. A modified engine cowling and mountings reduced noise in the cockpit and cowl cracking. The generator is replaced with an alternator for electrical power supply. This model was also produced by the USAF as a T41-A. |
| F172H | Reims<br>French<br>172    | 1967 | F1720320-<br>F1720446   | Made by Reims in France, some differences in manufacturing.  |
| F172H | Reims or<br>French<br>172 | 1968 | F17200655-<br>F17200754 | Made by Reims in France, some differences in manufacturing.  |

Note: The type certifier "F172" designates a Reims C172, that is if the type indicator has F in the front, it was built in Reims factory in France. Reims built C172s, between 1963 and 1976. They are reported by Cessna maintenance manuals, for maintenance purposes as being nearly identical to the C172 produced in Wichita except for the engines on some models.

| Model | Name                   |    | Year | Serial<br>Numbers       | Significant Changes and Features   |
|-------|------------------------|----|------|-------------------------|--|
| C172I |                        |    | 1968 | 17256513-<br>17257161   | Engine changed to 150hp Lycoming O-320 E2D ("Blue Streak") with higher 2000 hour overhaul time, 38USG usable fuel. |
| C172K |                        |    | 1969 | 17257162-<br>17258486   | Rear side windows enlarged, redesigned fin, optional 52USG tanks. Split bus bar now on all models.                 |
| F172K | Reims<br>French<br>172 | or |      | F17200755-<br>F17200804 | Made by Reims in France, some differences in manufacturing.  |
| C172K |                        |    | 1970 | 17258487-<br>17259223   | Fiberglass drooping wing-tip   |
| C172L |                        |    | 1971 | 17259224-<br>17259903   | Landing light shifted from wing to nose.<br>Flat steel replaced by tubular steel<br>undercarriage.                 |
|       |                        |    | 1972 | 17259904-<br>17260758   |  |
| F172L | Reims<br>French<br>172 | or | 1972 | F17200805-<br>F17200904 | Continental Rolls Royce engine changed to standard C172 Lycoming O-320-E2D engine.                                 |
| C172M |                        |    | 1973 | 17260759-<br>17261898   | Drooped leading edge wing introduced for better low speed handling. Seaplane flap reduced to 30 degrees.           |
| F172M | Reims<br>French<br>172 | or | 1973 | F17200905-<br>F17201034 |  |
| C172M |                        |    | 1974 | 17261899-<br>17263458   | Baggage compartment increased in size  |
|       |                        |    |      | F17201035-<br>F17201234 |  |
| C172M |                        |    | 1975 | 17263459-<br>17265684   |  |
|       |                        |    |      | F17201235-<br>F17201384 |  |

| Model | Name | Year | Serial<br>Numbers   | Significant Changes and Features  |
|-------|------|------|---|---|
| C172M |      | 1976 | 17265685-<br>17267584                                       | Airspeed changed from miles to knots, instrument panel redesigned to include more avionics, engine and fuel gauges shifted to the more ergonomic position on the left side of the instrument panel above the master switch.   |
| F172M |      | 1976 | F17201385<br>on   | This was the last standard model F172 made by Reims, see also FR172 under Type Variants.  |
| C172N |      | 1977 | 17261445,<br>17267585-<br>17269309                          | 160hp Lycoming O-320-H2AD engine* Flap selector changed to the safer and more ergonomic 'preselector' arm (replacing the 3 position toggle switch). Adjustable rudder trim available, notched lever. Usable fuel 40USG, optional 54USG long range fuel tanks (50USG useable). |
|       |      | 1978 | 17261578,<br>17269310-<br>17270049<br>17270051-<br>17271034 | 14V electrical system changed to 28V. Air conditioning now available as an option. HIGH VOLTAGE warning light changed to LOW VOLTAGE, with sensors incorporated in alternator control unit.   |
|       |      | 1979 | 17271035-<br>17272884                                       | Limiting speed on first 10 degrees of flap increased from 85kts to 110kts.  |
|       |      | 1980 | 17270050,<br>17272885-<br>17274009                          |   |

<sup>\*</sup>This engine was the first engine (excluding the 210hp military version) designed to operate on 100/130 Octane fuel, previous engines were designed for 80/87 Octane. Most aircraft engines have now been modified to operate on 100/130 or 100 Low Lead Aviation Gasoline (Avgas 100 and Avgas 100LL) with 80/87 (Avgas 80) now having only very limited availability.

| C172P | Skyhawk                                     | 1981   | 17274010-<br>17275034 | Lycoming O-320 engine changed from H2AD to D2J to address some design |
|-------|---|--|-----------------------|---|
|       | 17275035-<br>17275759                       | issues. Flap reduced from 40 degrees to 30 degrees. Landplane weight increased |                       |   |
|       | 1983   17275760-   from 2300 to 2400lbs. Op | from 2300 to 2400lbs. Optional 66USG, 62USG usable long range tanks with wet   |                       |   |
|       |   | 1984   |                       | wing available.   |

| Model    | Name   | Year | Serial<br>Numbers     | Significant Changes and Features  |  |  |
|----------|--|------|-----------------------|---|--|--|
|          |  | 1985 | 17276260-<br>17276516 | From 1982, landing lights shifted from cowl back to wing with standard dual   |  |  |
|          |  | 1986 | 17276517-<br>17276654 | light fitting.  |  |  |
| C172Q    | Cutlass  | 1983 | 17275869-<br>17276054 | Lycoming O-360 engine, developing 180hp at 2700rpm, maximum gross   |  |  |
|          |  | 1984 | 17276101-<br>17276211 | weight 2550lbs. Although marketed as a Cutlass, having the same engine is just about the only the resemblance this models shares with the C172RG.             |  |  |
| C172R    | Skyhawk  | 1996 | 17280001<br>on        | 160hp Lycoming fuel injected IO360 engine, optional G1000 avionics, maximum weight increased to 2450lbs, optional 2550 maximum weight kit, 53USG usable fuel. |  |  |
| C172S    | Skyhawk<br>SP  |      | 172S8001<br>on        | Engine power increased to 180hp with maximum rpm increasing from 2400 to 2700 rpm, maximum weight 2550lbs.  |  |  |
| At the t | At the time of publication, only the C172S is still in production. |      |                       |   |  |  |

# **Type Variants**

The following aircraft, although marketed as Cessna 172s, are all certified under the FAA Type Data Certificate of the Cessna 175. All contain significant differences in power available, and airframe.

| Model  | Name                                 | Year | Serial<br>Numbers       | Significant Changes   |
|--------|--------------------------------------|------|-------------------------|---|
| P172D  |                                      |      |                         |   |
| P172D  | Powerma<br>tic                       | 1963 | P17257120-<br>P17257188 | 175hp Continental GO-300-E Powermatic geared engine and revised cowling with dorsal gearbox fairing. This model was essentially a C175 Sklark, renamed in a failed attempt to fix poor sales performance of the C175. |
| FP172D | French or<br>Reims<br>Powerma<br>tic | 1963 | FP1720001<br>FP1720003  | Reims version of P172D, made in France , some differences in manufacturing.   |

Note – many Cessna types have adopted the prefix of 'P' for a pressurised aircraft, this model demonstrates one of the common exceptions.

| Model   | Name             | Year   | Serial<br>Numbers                 | Significant Changes   |
|---------|------------------|--------|-----------------------------------|---|
| US Air  | Force Mo         | odels  |                                   |   |
| R172E   | USAF<br>T41B,C,D | 1964   | R1720001-<br>R1720335             | Fitted with Continental IO360 engine, producing 210hp at 2800rpm, maximum weight 2500lbs, Certified on C175 type certification sheet. |
| R172F   | USAF<br>T41B,C,D |        | R1720336-<br>R1720409             |   |
| R172G   | USAF<br>T41B,C,D |        | R1720336-<br>R1720409             | 2550 maximum weight   |
| R172H   | USAF<br>T41B,C,D | 1971   | R1720445-<br>R1720494             |   |
|         |                  | 1972   | R1720495-<br>R1720546             |   |
|         |                  | 1973   | R1720547-<br>R1720620             |   |
| Retract | table Gea        | ar Mod | del                               |   |
| C172RG  | Cutlass<br>RG    | 1980   | 172RG0001<br>172RG0570            | Retractable undercarriage, Lycoming O-360 engine developing 180hp, with three   |
|         |                  | 1981   | 172RG0571<br>172RG0890            | blade constant speed propeller, gross<br>weight 2650lbs. Total usable fuel 62USG.<br>Mainly popular with flight schools as a          |
|         |                  | 1982   | 172RG0891<br>172RG1099            | complex trainer.  |
|         |                  | 1983   | 172RG1100<br>172RG1144            | Certified on C175 type certification sheet.   |
|         |                  | 1984   | 172RG1145<br>172RG1177            |   |
|         |                  | 1985   | 172RG1178<br>172RG1191            |   |
| R172K   | - Hawk           | XP Mo  | dels                              |   |
| R172K   | Hawk XP          | 1977   | R1722000-<br>R172272              | 1977 had 14V electrical system, otherwise similar to other Hawk XP's described below.   |
|         |                  | 1978   | R1722725<br>R1722929              | Called the Hawk XP with a Continental IO-360K fuel injected engine and  |
|         |                  | 1979   | R1720680,R<br>1722930<br>R1723199 | constant speed propeller, de-rated to 195hp at 2600rpm. Maximum weight  |

| Model  | Name             | Year | Serial<br>Numbers                            | Significant Changes  |
|--------|------------------|------|--|--|
|        |                  | 1980 | R1723200<br>R1723399<br>(except<br>R1723398) | increased to 2550lbs. Also certified as C175.<br>1978 models on had 28V electrical system. |
|        |                  |      |  | Certified on C175 type certification sheet.  |
|        |                  | 1981 | R1723400<br>R1723454                         | Flap reduced from 40 to 30 degrees as with other models of C172.                           |
| FR172K | Reims<br>Hawk XP | 1977 | FR1720591<br>FR1720620                       | The Hawk XP model made by Reims in France, some differences in                             |
|        |                  | 1978 | FR1720621<br>FR1720630                       | manufacturing.   |
|        |                  | 1979 | FR1720631<br>FR1720655                       |  |
|        |                  | 1980 | FR1720656<br>FR1720665                       |  |
|        |                  | 1981 | FR1720666<br>FR1720675                       |  |