

Stinson 108 Model Identification
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 By Larry Westin - January 28, 1996
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Information about the Stinson 108 **Serial Numbers, FAA Type Certificate 767, U.S. Registration Numbers, Vertical Stabilizer and Rudder Differences and Misinformation**, and the **External Baggage compartment door** as delivered from the factory. Six different Models of the Stinson 108 were built with these serial numbers assigned. Please note serial number exceptions below the tables. Serial Numbers as Delivered by Stinson and Univair:

| Model | Serial Numbers | Total Built | Remarks |
|---|---|--------------------|---|
| 108 Prototypes | 108-1 & 108-2 | (2) | Two model 108 prototypes (converted model 10A airplanes) |
| Production Stinson 108 Serial Numbers manufactured 1946-1948 | | | |
| 108 | 108-1 to 108-10, 108-12 to 108-742 | 741 | 150 hp Franklin |
| 108-1 | 108-11, 108-743 to 108-1473, 108-1475 to 108-2249 | 1507 | 150 hp Franklin |
| 108-2 | 108-1474, 108-2250 to 108-3500 | 1252 | 165 hp Franklin |
| 108-3 | 108-3500 to 108-4692, 108-4694 to 108-5260 | 1759 | 165 hp Franklin |
| 108-4 | 108-4693 | 1 | 190 hp Lycoming |
| | model 108's manufactured by Stinson | 5260 | |
| Production Univair 108 Serial Numbers manufactured 1963 | | | |
| 108-5 | 108-5001 | 1 | 180 hp Franklin, Duplicate serial number |
| | model 108's manufacture by Univair | 1 | |
| | Total model 108's manufactured | 5261 | New manufacture model 108 production by Stinson & Univair |

Total known Stinson Serial Numbers - 5260 - does NOT including the 2 converted prototypes but includes the single model 108-5 serial number which duplicates a 108-3 serial number, giving a total of 5,261 model 108's manufactured.

Two prototypes were converted from company owned model 10A Voyagers. Registrations were NX31519 and NX31532 respectfully. Both these airplanes were scrapped by 1948. FAA records list them as serial numbers 1 and 2, but there was also production serial numbers 1 and 2.

Uncertain of 108-5 serial numbers so only the first aircraft built by Univair is listed. It is no longer on the register. Janes All The Worlds Aircraft, 1976-1977, indicates a prototype and at least 17 production model 108-5's were built up to 1 March 1976. Later information indicates that Univair built only the single 108-5, however earlier 108-3 aircraft may have been brought up to the 108-5 standard.

Serial Number Exceptions

Serial number 108-11, built during the 108 run, is listed as a 108-1, it is the prototype for the 108-1 model.

Serial number 108-1474, built during the 108-1 run, is listed as a 108-2, it is the prototype for the -2 model.

Serial number 108-3100 is listed in the type certificate sheets as a 108-1, it was originally built as a 108-2 and its data plate continues to show it as a 108-2. About two years after it was built the engine was replaced with a Franklin 150 HP and given FAA (then CAA) field approval. Apparently the FAA decided that the lower HP engine effectively made it a 108-1. The airplane continues to have the rudder bungee applied only to the 108-2. My thanks to Bob Winters, current owner of sn 108-3100, N8100K, for providing this information.

A Special Stinson 108-2, Serial Number 108-1563

Photographs show this airplane heavily modified, and at one time I thought it to be the 108-4 prototype. This is serial number 108-1563. This particular airplane was used for extensive development work, accomplished by Consolidated Vultee at San Diego. Most noticeable is its use of a single wing strut and the "big" tail later used on the 108-3, 108-4 and 108-5. Other changes included a Lycoming 190 Hp engine, and tests with several different propellers, including a three bladed propeller. This airplane was converted back to a standard model 108-2 before delivery. Most of the modifications to this airplane appeared on the model 108-3. The single lift strut was not used in production. Thanks to Bill Stoos, of Mulberry, Florida, current owner of this airplane, for taking the time to research N8563K's paperwork.

The Model 108-4, Serial Number 108-4693

Production records show that serial number 108-4693 is the prototype for the model 108-4. These records list only a "Spec. Engine, Special Prop, jettisonable doors, equipped for floats, and special panel." Registration of this airplane was NX149C.

John Wegg, author of "General Dynamics Aircraft and their Predecessors," provides the following data about the model 108-4. "Model 108-4 remained a proposal with a geared, higher-powered Franklin Engine." The production records I have indicate only a "special engine" was installed in the 108-4, no other details. It may have been a higher powered geared Franklin mentioned by John Wegg.

A total of 5260 production Stinson 108's can be identified by serial number. This does NOT include the new 108-5 production by Univair with a duplicate serial number, 108-5001. All Stinson 108's were built by Stinson, some 325 were included in the sale of the Stinson Division to Piper in December 1948.

See the note about the 108-5 serial number under Approved Type Certificate below, as the serial numbers seem identical with serial numbers for the 108-3.

FAA Approved Type Certificate number 767 Stinson (Univair) 108

Models 108, 108-1, 108-2, 108-3 and 108-5 are all certified under ATC #767.

Model 108-4 was built as an experimental prototype only and is NOT listed on ATC #767. See serial number 108-4693 info above.

The current type certificate sheet A-767, is dated October 1, 2011, Rev. 28, lists the eligible serial numbers for the model 108-5 as 108-3501 and up, same as 108-3's. Janes All The Worlds Aircraft, 1976-1977, indicates a prototype and at least 17 production model 108-5's were built up to 1 March 1976. Janes also shows a photograph of a 108-5, N5576V. My understanding is that Univair Aircraft in Aurora, Colorado, current holder of the type certificate, built only one 108-5. N5576V is not a Stinson listed in the current register, but apparently was given serial number 108-5001.

U.S. Registration Numbers

Originally allocated U.S. registration numbers are listed below. When ranges are shown the numbers were allocated in blocks, but not all were used. For example serial number 108-4981 was sold in Mexico before delivery and assigned Mexican registration XB-JEY. Consequently registration NC6981M, which would have been assigned to serial number 108-4981 if the aircraft was registered in the U.S., was never used from the factory on a Stinson.

Assigned U.S. "NC" registration number ranges from Stinson

| 108 Serial Number Range | Registration Number Range |
|--------------------------------|----------------------------------|
| Prototype serial number 1 | → NX31519 (NX is experimental) |
| Prototype serial number 2 | → NX31532 (NX is experimental) |
| 108-1 to 108-10 | → NC87600 to NC87609 |
| 108-11 | → NC39420 |
| 108-12 | → NC39433 |
| 108-13 | → NC39443 |
| 108-14 | → NC39445 |
| 108-15 | → NC39447 |
| 108-16 | → NC39453 |
| 108-17 to 108-24 | → NC39461 to NC39468 |
| 108-25 | → NC40109 |
| 108-26 | → NC39480 |
| 108-27 | → NC39495 |
| 108-28 to 108-29 | → NC39497 to NC39498 |
| 108-30 | → NC26494 |
| 108-31 to 108-38 | → NC40101 to NC40108 |
| 108-39 | → NC39470 |
| 108-40 to 108-129 | → NC40110 to NC40199 |
| 108-130 to 108-999 | → NC97130 to NC97999 |
| 108-1000 to 108-1129 | → NC97000 to NC97129 |
| 108-1130 to 108-2870 | → NC8130K to NC9870K |
| 108-2871 to 108-2999 | → NC871D to NC999D |
| 108-3000 to 108-3129 | → NC8000K to NC8129K |
| 108-3130 to 108-3999 | → NC130C to NC999C |
| 108-4000 to 108-4692 | → NC6000M to NC6692M |
| 108-4693 | → NX149C (NX is experimental) |
| 108-4694 to 108-4999 | → NC6694M to NC6999M |
| 108-5000 to 108-5260 | → NC4000C to NC4260C |

NOTE - some aircraft were exported so not all the U.S. registration numbers in each block were used. For example serial number 108-3149 was exported to Mexico as XB-HEJ, so the normal sequential registration number, N149C, was not allocated. When Stinson built the 108-4 prototype, serial number 108-4643, rather than use the in sequence registration number, Stinson elected to use the unallocated registration number but making it experimental "NX149C."

| Assigned U.S. "N" registration numbers from Univair | |
|--|----------------------------------|
| Serial Number Range | Registration Number Range |
| 108-5001 | → N5576V |

NOTE - serial number 108-5001 is a duplicate inadvertently used by Univair for the single model 108-5 manufactured by Univair.

My thanks to Ray Schwarz for correcting the "N" numbers on serial number 108-25 and 108-39.

Vertical Stabilizer and Rudder Differences and Misinformation

One major identification point of Stinson 108's is the tail. Models 108, 108-1 and 108-2 have the "small tail." Models 108-3, 108-4 and 108-5 have a much larger tail and are frequently referred to as "big tail" Stinsons. Another acronym for the larger tail is "tall tail." While some publications indicate late model 108-3's, those delivered by Piper, had a smaller type tail this is incorrect. Every owner who has contacted me about their very late serial number 108-3's say they have the standard "big tail." Several publications indicate that Piper built Stinson's had the small tail; this is inaccurate. Piper did not build any Stinson's, although they may have assembled some 108-3's. All model 108-3's, the 108-4 and the 108-5 all have the "big tail."

Stinson model 108 External Baggage Compartment Door

See chart on page 6 for specific model and serial number information as to which Stinson manufactured model 108 were delivered from the factory with the external baggage compartment door.

It is possible to add the external baggage compartment door to an airplane by replacing some fabric formers on the right side of the fuselage and the baggage compartment door.

**Stinson model 108 external baggage compartment
door as delivered from the factory**

| Model | External Baggage door installed at the factory |
|--------------|--|
| 108 | serial numbers 108-1 to 108-10 - No serial numbers 108-12 to 108-742 - No |
| 108-1 | serial number 108-11 - No serial numbers 108-743 to 108-1469 - No serial numbers 108-1470 to 108-1473 - Yes serial numbers 108-1475 to 108-108-2249 - Yes |
| 108-2 | serial number 108-1474 - Yes serial numbers 108-2249 to 108-3500 - Yes |
| 108-3 | serial numbers 108-3501 to 108-4692 - Yes serial numbers 108-4694 to 108-5260 - Yes |
| 108-4 | serial number 108-4693 - Yes |
| 108-5 | serial number 108-5001 - Yes |

While later model 108-1 have the external baggage compartment door from the factory, the Stinson sales brochures for the 108-1 do not show an external baggage door.

If you can provide any corrections or updated information please contact me, I look forward to hearing from you. My contact information is:

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