

INTRODUCTION TO THE EVOLUTION OF THE MODEL A FORD FRAME

The following is a study and data base for the Model A Ford Frame Assembly, A-5005-A, B, C and D. It tells us just when parts, holes, and other items were changed or upgraded on the frame during the production period. It also gives one an idea of the changes for the new applications which were instituted by Ford during the Model A years, 1928 through 1931.

Ford engineering release's were used in conjunction with other documents to get a good picture of the evolution of the Model A Ford frame.

In the book , The Ford Model A as Henry built it, by G. De Angelis, E. P. Francis and L. R. Henry, it states that "The Model "A" frame is a simple ladder-type, consisting of two long straight side members and front, center and rear cross members. The material used for the side rails is a channel pressed steel section approximately 100 inches long. The cross members are not straight shapes, but formed for strength. The front and rear cross members also serve as mounts for the springs. The corners of the frame are braced by gusset plates or reinforcing brackets. The cross members are fastened to the side rails with rivets and the joint is strengthened with the gussets which are riveted to the side rails and the cross members. The body support brackets are also attached to the side rails with rivets.

Engineering records show that there were three basic passenger car frame designs during the production period of the Model "A", designs A, B, and C.

The A-5005-A frame assembly was used on early 1928 models. Similar to other early items, the drawing had a note stating that it was to be used "on the first 200 cars only". The A design was replaced in December 1927 with the B design which became the standard for all 1928-1929 cars.

Starting with the new 1930 bodies in December, 1929, the C design frame with some new bolt hole locations was put into use. It became the standard frame for production and service until the end of Model "A" production".

This study takes the above just a little bit farther, in that it describes in detail, the specific changes to each frame part in the production process. Original frames are also included to see just where they actually fall according to the engine number. However, one must remember that the engine was stamped well in advance of it being dropped into the frame. Depending on just what assembly plant that engine was sent to, it may have taken from 1 day to 4-6 maybe 8 weeks before it was dropped into the chassis. Once this occurred, the engine number was then stamped on to the top left side of the frame flange directly where the cowl section sits. There is then, no way to view the engine/frame number without lifting the body off the frame.

One can, however, correlate the engine serial number (and its specific stamping date) on the frame with the release date, as both occurred at the Ford factory in Dearborn, Michigan. But again, as stated above, any particular frame was stamped anywhere from 1 day to 4-6 maybe 8 weeks *after* the engine was stamped at the Rouge assembly plant due to the fact that it took that long to put those completed engines and other components of the car or truck on to railroad cars and to get those items to any one of the other 31 assembly plants throughout the United States. So placing the frame in order as such, does not necessarily mean that that particular frame was stamped as such.

Here is an example of a known early vehicle. Engine Serial Number A2157, which was stamped on December 14, 1927 at the Rouge plant. This engine, along with others before it, was sent to the Kearny, New Jersey assembly plant. This plant started production on December 12, 1927. The Kearny (KY) assembly plant was about 540 miles from the Rouge assembly plant, so it took some time to get that engine and related parts there. As the body came down the line, it was given a body number of KY20 which was the 20th unit of Kearny, stamped into the top of the body cross rail, just ahead of the front seat riser and behind the floorboards. Unfortunately it is not known just when A2157 rolled off the assembly line at Kearny, but it may have been a week after its arrival.

With this in mind, the further a particular assembly plant was from the Rouge plant, the longer it took to deliver the parts, unload and assemble the vehicle. The closest one can get to the actual assembly of vehicles, with known available documents today, are the assembly plant's original Factory Bill of Sales. If you happen to have any of these, would you be so kind as to send me a copy so I may record it in the Bill of Sale portion of this website. Even Dealership Bills of Sale are also welcome.

Just what is a "release"? The release was an engineering document which recorded the date when the drawing was approved for production of a specific part. It also recorded any changes that were made to the part when it was replaced or became obsolete. In many cases there are several parts associated with the same release number. This means that a specific number of parts were being changed at the same time in order to bring the complete frame assembly up to date. This may be viewed in the "Releases and those Parts Involved" section. The name "release" is short for "released for production".

Work started in mid 1927 on the frame assembly and on June 3, 1927 with Release # 403, the first prototype was "Released for production". By October 12, 1927 enough blocks were cast and assembled that Ford started numbering the completed engines on October 20, 1927. The next day, October 21, 1927, a Tudor prototype went through the assembly line to final assembly thus checking the assembly procedures. "Start-up date" for the Rouge plant was October 23, 1927. By October 26, 1927, small groups of numbered engines were starting to be sent to the final assembly line. So in essence, more than likely, there are prototype cars out there that may or may not exist today. However it was not until October 28, 1927 with Release # 3574 that Frame Assembly, A-5005-A, was put into actual production at Dearborn and was to be "Used on first 200 cars only". Does that mean that Engine Numbers A1 through A200 were used in those first 200 cars? Does that mean that A1 through A200 be stamped on frames in consecutive order? Not at all.

It is not exactly known for sure just what engine number was in that very first "post" prototype Model A off the assembly line in Dearborn, but one can come real close in speculating. Obviously, some of those engines numbers were used in the prototype vehicles, but by October 28, 1927, there were already 21 engines to chose from which had been sent to the final assembly line to drop into that first car with the new frame assembly, A-5005-A with the 3-piece front motor mount. Those engine numbers ranged from A8 to A127 according to the list of Model A engines which were sent to the final assembly line: October 26: A-8, 11, 15, 16, 39; October 27: A-17, 25, 35, 43, 50, 53, 83, 121, 122, 125; October 28: A-26, 41, 55, 69, 88, 127.

No sooner was Frame Assembly A-5005-A put into service along with all the parts associated with it, it was on that same day, October 28, 1927 under the same release number of #3574, that Frame Assembly A-5005-B came into being as the release said "New number, new design, A & AF chassis 1928, AFTER first 200 cars". Was this statement a sign indicating that the "new" frame be put into service OR was the statement indicating that a "new" frame be designed? If that was the case, then it was November 19, 1927 that the "new" frame with the 1-piece front cross member was put into production with Frame Assembly A-5005-B Release # 4973. By that time, over 660 engines had been numbered and most had been sent to the final assembly line. However one must allow time for the adjustment of the dies to be made on the assembly line whenever any "new" adjustments were made to any assembly feature. Plus, Ford used up all existing stock before he started to use the "newer" designed parts, so again, knowing this fact, would of even prolonged the time of getting that newer, redesigned part onto the car or truck.

Sometimes I wonder if those "first 200" cars were actually more than 200 cars.

The numbers represented below the month and year, represent those engines which were stamped specific serial numbers for that specific month.

Where the Frame Assembly is “**Brought to date**” or “**Brought to date with changes (in parts) in side members**” etc., those engine numbers, which were stamped on that date, are also associated with the release date just to give you a perspective of the timeline.

Where you will note (“*comments in parenthesis*”), those comments are my own thoughts and speculations about the part or assembly process until it can be proven otherwise.

Most designations in the study indicate those features which are seen and can be measured. Most are self-explanatory. As one will follow the release information below, you will note several things about them. First of all some of the statements are vague and make no sense while others are more specific. Second, some items you will completely understand while others will leave one in the dark. Third, some items are so technical that it would take a real engineer to figure it out. Then there are those descriptions that might be found on just a small, small percentage of vehicles thus may never be found in the real world if in fact they did exist. There is one release that explains of a production change that did not happen for at least 1-1/2 years later!

These are the releases. They are a “guide” as to the production process. One must be reminded again that it took time to put that change into place as it took time to upgrade the dies to make the new part or assembly.

No matter the case, the data presented below is just that...The Evolution of the Model A Ford Frame Assembly, A-5005-A, B, C and D, according to the Ford Engineering Releases.

If you note any information relating to the Model A Ford Frame Assembly, A-5005-A, B, C or D, please let me know so I may include it in this data base at steve@plucks329s.org. Thanks.

Steve C. Plucker

NOTE: For your information, according to the Benson Ford Research Center: It is “allowed to use the information from the releases on the website” It is not “allowed to REPRODUCE THE IMAGE of the releases nor are you allowed to place parts drawing images on the website unless you pay for commercial fees”.