

Indented Firewall

by Bob Bidonde

Is there such a thing in Model A Fords? There sure is and it is peculiar to 1931 Model A & AA vehicles. The indented firewall was phased into factory production starting in April 1931 and reached 100% production use in May 1931 according to a factory service bulletin. However, the indented firewall was only one part of a much larger design change that encompassed replacing the gasoline tank in all Model A & AA production. If you have the Ford Service Bulletin for May 1931, page 560, refer to it while you read this article.

The bulletin starts out with, "A new design **cowl tank** A-9002-E is now being used in all Model 'A' cars and 'AA' trucks. The new tank replaces the previous design A-9002-C tank which will be obsolete after present stocks are exhausted."

Ford's bulletins use some "horse & buggy" era terms that need translation into Model A hobby jargon we can understand. So here are some definitions:

- A **cowl tank** is the Ford Motor Company's expression for gasoline tank;
- The **dash** is the firewall, the body panel in automobiles that separates the engine from the passenger compartment. In buggies, the dash was a board that separated the front seat from the horse's derrière, hence the term "dash board." In modern automobiles, the dash is the panel just below the windshield that contains the instruments.

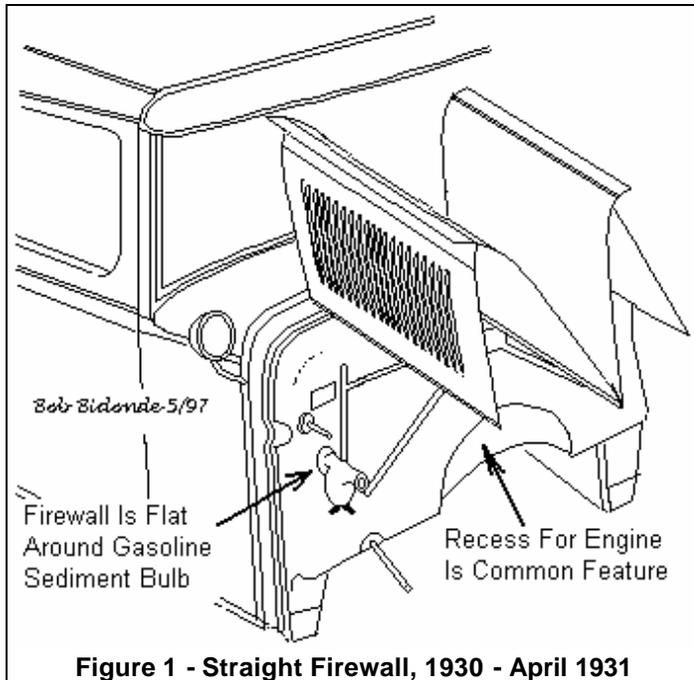


Figure 1 - Straight Firewall, 1930 - April 1931

Figure 1 shows the traditional flat firewall typical of Model A & AA vehicles produced throughout 1930 and until about April 1931. Now compare the flat firewall in Figure 1 to the indented firewall in Figure 2. There are several differences apparent: the indent; the stiffening ribs; the patent data plate location; the new gasoline shutoff valve. This

discussion is not about the engine clearance recess in the center of the firewall, common to all Model A & AA vehicles.

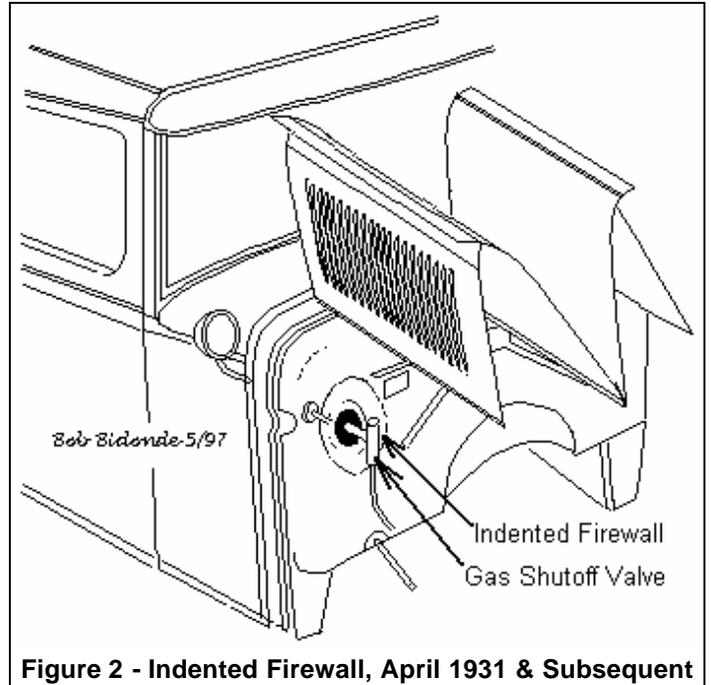


Figure 2 - Indented Firewall, April 1931 & Subsequent

Figure 3 shows the "as built by the factory" arrangements of the old A-9002-C and new A-9002-E cowl tanks. Observe these differences:

- the indent in the firewall connects the new gas shutoff valve directly to the outlet fitting on the tank which eliminates the gas line inside the car;
- there is only one potential leak point inside the vehicle in the new design in contrast to 5 potential leak points in the old design;
- the gasoline shutoff valve, which was originally inside the vehicle and mounted directly to the bottom of the gasoline tank, is now outside on the firewall;
- the new shutoff valve brought about the demise of the cast iron sediment bulb. A new sediment bulb is attached to the side of carburetor and the upper body of the carburetor has the gas inlet port relocated;
- the steering column support was removed from the gasoline tank redesigned to pickup the body at the dash rail just below the windshield opening;
- the indentation in the firewall, in which the new shutoff valve sits, gives rise to the term "indented firewall." Don't confuse this with the centrally located recess behind the engine that is common to all Model A's & AA's.

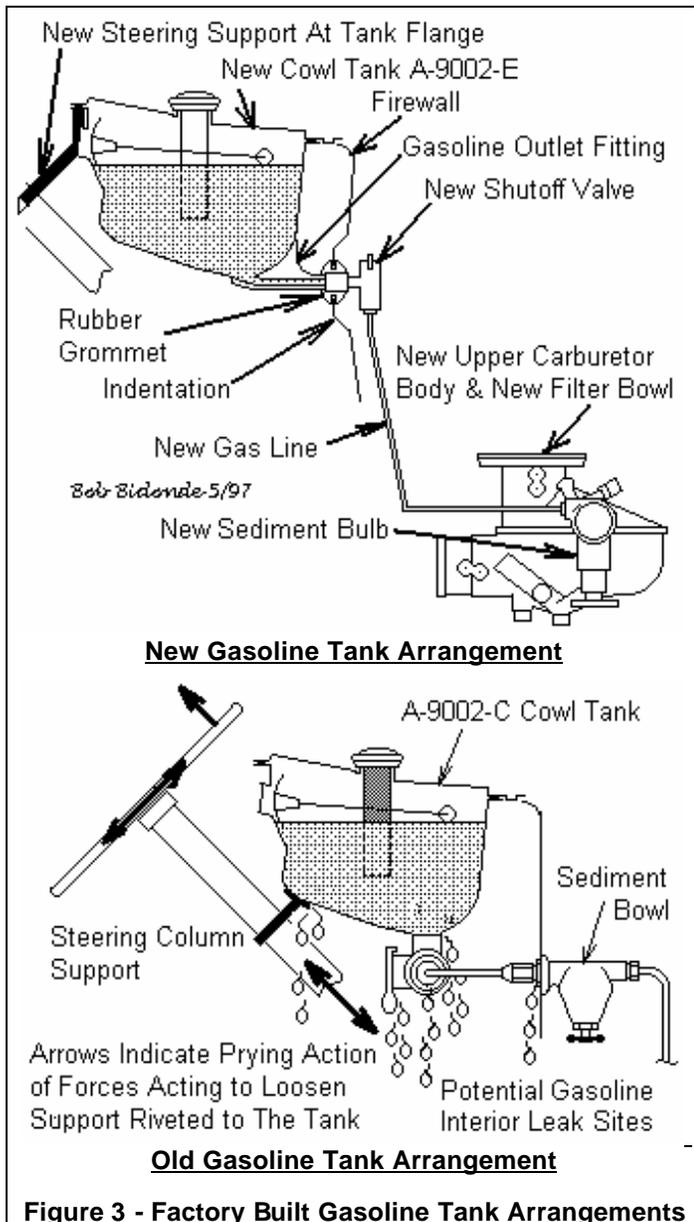
Some possible business and technical reasons for the new gas tank design and indented firewall can be deduced from Figure 3:

- the steering column support is riveted to the old gasoline tank. Unfortunately, chassis twisting and loading from operating the steering eventually loosen the support attachment causing the tank to leak;
- several cities would not license Model A Taxis because of the potential for gasoline leakage inside the

car;

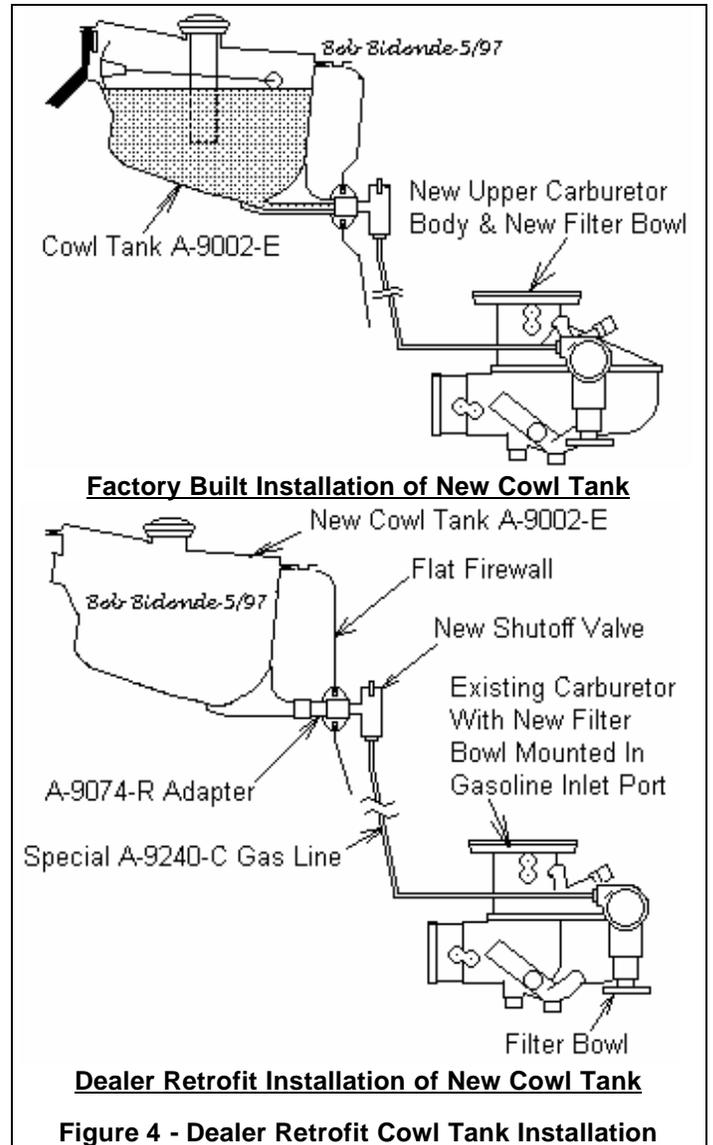
- it was the time of the Great Depression when money was tight, competition from Chevrolet and the new Plymouth was keen. So Ford could not afford adverse public reactions from gasoline leakage in its cars and trucks.

The irony of this cowl tank change, which must have had significant design & manufacturing costs, was that the end of domestic Model A & AA production was only a few months away and leakage of gasoline at the steering column support was known problem in 1928. Yet, resolution of the problem came just months before the shutdown of Model A production and it's possible that the company may not have recovered the cost of the cowl tank change.



Suppose a dealer was confronted by a customer owning a Victoria with a straight firewall. Suppose this Victoria suffered front end damage in a collision and as a result, the cowl tank was leaking at the steering column support. The

dealer likely would have retrofit the new A-9002-E tank into the damaged Victoria as shown in Figure 4. Figure 4 is like Figure 1162 of the May 1931 Service Bulletin.

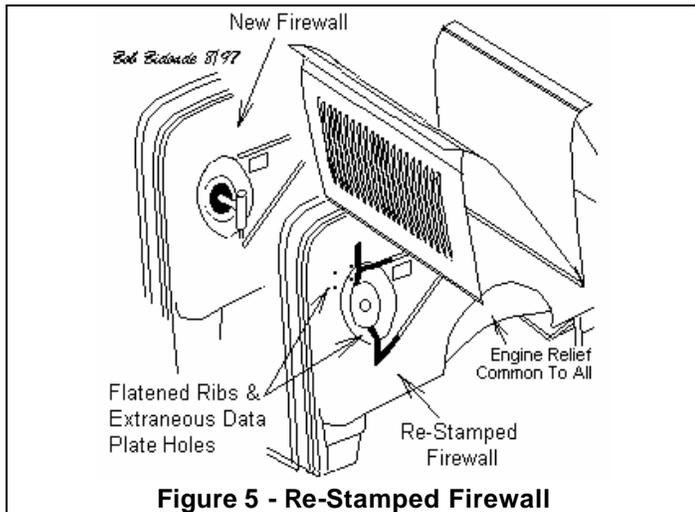


The retrofit installation makes use of the old carburetor by mounting the new side filter bowl directly into the gas inlet port. Compare the carburetors in Figure 4 and note the difference in filter bowl locations. Although mounting the new filter bowl in the inlet port of the existing carburetor dictated the special retrofit gas line A-9240-C, the special line saved the customer the cost of replacing the more expensive carburetor.

Also note the special retrofit A-9074-R adapter. As far as potential gasoline leakage is concerned, the adapter was a step backward, but it too reduced the customers cost. The alternatives Ford avoided would have been considerably more expensive to the customer, (a) producing a cowl tank with a special fitting to reach the straight firewall or (b), retrofitting the indented firewall.

There are 2 different styles of indented firewall. At the time the new cowl tank installation started going into production, Ford had a stockpile of straight firewalls. These

were re-stamped to add the indentation. As a result, some of the stiffening ribs, shown dark in Figure 5, were flattened. The patent data plate was relocated, but the 4 patent plate attachment holes in the old location were left open.



Indented firewalls, including re-stamped ones, are found in both straight and slant windshield Model A's, and in Model AA's. It appears no effort was made by the factory to direct re-stamped firewalls to commercial vehicles. The presence of an indented firewall is a piece of significant evidence that helps narrow in on the body assembly date of a 1931 Model A or AA.

Hopefully, this article clarifies the indented firewall which is often confused with the more common indentation for the engine found in all Model A & AA vehicles.