

FORD'S WAY

EVOLUTION OF THE MODEL A/AA FORD

OIL PUMP ASSEMBLY

(An inside view of the Model A/AA Ford)

By

Steve Plucker

Most research articles pertaining to the 1928-1931 Model A/AA Ford are viewing and studying parts for which one can see with the naked eye. However there are a few parts that are just as equally important except that these are the parts one never sees after a restoration let alone in the judging scheme of things.

One of these parts is the A-6600 Oil Pump Assembly and related items..

There were five (5) Oil Pump Assemblies that were involved with the production of the Model A/AA Ford: (1) A-6600; (2) A-6600-B (Type 1); (3) A-6600-B (Type 2); (4) A-6600-B2 (Soldered Cover Design); and (5) A-6600-B3 (Bolted Cover Design).

All the parts within the engine are lubricated from the oil reservoir in the oil pan by the Ford Oil Pump Assembly. The oil pump is located in the bottom of the oil pan and is operated by a gear on the camshaft.

The pump is enclosed in a fine mesh wire screen through which the oil filters before it is pumped up into the valve chamber.

At the start of production, all engines were equipped with **A-6600 Oil Pump Assembly (Fig. 1)**. The related parts are shown in **(Fig. 2)**. Also included were A-6619 Oil Pump Cover Gasket and A-6620 Oil Pump Retaining Spring which was fixed to the Oil Pan Cleanout Plate **(Fig. 3)**.



(Fig.1)



(Fig. 2)



(Fig. 3)

By February 17, 1928 (PR# 7327) A-6600 was in the process of being obsolete by the second oil pump, **A-6600-B (Type 1) Oil Pump Assembly**. According to **The Ford Indianapolis Service Letter of May 3, 1928**, this pump made it's first appearance in engine *A44001*, a March 9, 1928 stamped engine which also ended A-6600 Oil Pump Assembly's existence in production.

However in another Ford document about Special Engines, it related that also on March 9, 1928, starting with *A43973* that "100% New Style Oil Pump".

A-6600-B (Type 1) Oil Pump Assembly (**Fig. 4**) was short lived. It came into existence on March 9, 1928. The only parts that were affected by the change were the new A-6603-C Oil Pump Body and the new A-6621/6623 Oil Pump Screen. All other parts remained the same (**Fig. 5**) along with A-6619 Oil Pump Cover Gasket and A-6620 Oil Pump Retaining Spring which was fixed to Oil Pan Cleanout Plate.



(Fig. 4)



(Fig. 5)

The following is what **The Ford Indianapolis Service Letter of May 3, 1928** said about the new A-6600-B (Type 1) Oil Pump Assembly: “All cars after A-44000 (March 9, 1928) have this new pump (Type 1)”. It was described as such: “The oil pump screen has been shortened (2-13/16 to 2-7/16) and a hood provided that covers the screen with the exception of a narrow opening at the bottom. This reduction of the area thru which the pump draws oil gives the pump greater suction so that it will operate even with congealed oil. The new pump will deliver oil immediately upon starting a cold engine at low temperatures. All cars after A-44000 (March 9, 1928) have this new pump”.

“The following parts are affected by this change:

<u>OLD</u>		<u>NEW</u>
A-6603-B	Oil pump body assembly	A-6603-C
A-6621-AR	Oil pump screen	A-6621-C

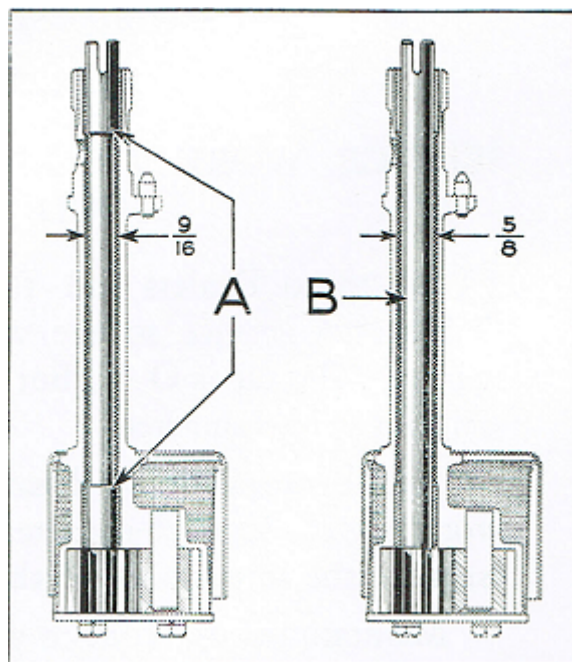
“The above old parts will not be supplied for service. If it is necessary to install either a body assembly or screen, the additional part necessary to make the change to new style pump will be used. The oil pump cover, gasket, driven gear and shaft, and driving gear assembly are interchangeable in new and old style pumps”.

By April 7, 1928 (PR# 8119), A-6600-B (Type 1) was being revised (and phased out in production) in which the Bushings, the Drive Shaft and the Pump Body were changed. This brought forth **A-6600-B (Type 2) Oil Pump Assembly**.

The Ford Service Bulletin for April 1928 told about the change: “The diameter of the shaft hole in the oil pump body **was** increased from 9/16” to 5/8” diameter and the relief was removed from the oil pump shaft (to make Type 2) **(Fig. 6)**”.

“The clearance between the shaft and the body forms the oil passage through which the pump delivers oil to the valve chamber. Formerly this clearance was obtained by relieving the shaft. The clearance is now obtained by boring a larger hole in the oil pump body and using a straight shaft”. **(Fig. 7)** shows the difference in shafts with the early, relieved shaft on the left and the later, straight shaft on the right.

“When replacing shaft in an oil pump equipped with the relieved shaft (A-6600-B (Type 1)) be sure to replace it with the same type of shaft, as the present design straight shaft would not allow sufficient area for oil flow when mounted in the previous-design pump body (A-6600-B (Type 1)) with the 9/16” shaft hole. The relieved shaft can, however, be used in the present pump (A-6600-B (Type 2)) with the 5/8” shaft hole”.



(Fig. 6)



(Fig. 7)

A-6600-B (Type 2) Oil Pump Assembly (**Fig. 8**) went through several revisions during it's time in production.



(Fig. 8)

On July 13, 1928 (PR# 9542) it was specified that the Oil Pump Screen be dipped in solder 1/8 inch to 3/16 inch deep and was to be 2-15/32 to 2-1/2 inches tall (**Fig. 9**).



(Fig. 9)

The Oil Pan Cleanout Plate (**Fig. 3**) Part Release indicated that on September 28, 1928, the cleanout plate became “Obsolete” on the Oil Pan Assembly. A change then was made to the Oil Pan Assembly for which a circular type cup was added to hold the Oil Pump Retaining Spring in place as seen in (**Fig. 10**).



(**Fig. 10**)

October 20, 1928 (PR# 10726) it was specified that A-6619 Oil Pump Cover Gasket “Not used with lengthened pump body...For repairs only”.

November 2, 1928 (PR# 10885) it was specified that A-6608-B Oil Pump Shaft Assembly, used with A-6600-B (Type 2) Oil Pump Assembly, was to secure the gears by “Adding two holes 3/16 drill and 3/16 deep in end and arc welding holes to secure gear in place” (**Fig. 11**). This welding of gears was short lived and soon the shaft was to be prick punched to hold the gears in place.



(**Fig. 11**)

On January 28, 1929 (PR# 11820) it was specified that a new Experimental Manufactured Oil Pump Assembly was to be adopted. This was **A-6600-B2 Oil Pump Assembly**. By March 1929 the pump was considered to be the “Soldered Cover Design” (**Fig. 14**). Whether or not it was used in production vehicles is not known at this time.

Where the three previous Oil Pump Assemblies were forgings (A-6600 and A-6600-B1 Types 1 and 2), this new pump and the next one (A-6600-B2 and A-6600-B3) were castings (See Ford Service Bulletin for November 1929).

By April 20, 1929 (PR# 12709) A-6600-B (Type 2) Oil Pump Assembly became "Obsolete" and was replaced with **A-6600-B2 Oil Pump Assembly (Soldered Cover Design) (Fig. 12)** and related parts **(Fig. 13)**. It was also specified that the designation of "Experimental Manufactured" be removed and that the part be "used for full production". Just why was it referred to the "Soldered Cover Design"? It was just that, the cover was soldered to the Oil Pump Body **(Fig. 14)**.

At this time there was also added the A-6618 Oil Pump Retaining Spring Clamp to hold the spring to the base of the Oil Pump Assembly **(Fig. 15)**. The Oil Pan Assembly was also modified **(Fig. 16)** and thus deleted the circular type cup as seen in **(Fig. 10)** which was no longer needed to hold the spring in place.



(Fig. 12)



(Fig. 13)



(Fig. 14)



(Fig. 15)



(Fig. 16)

On July 11, 1929 (PR# 13447), another oil pump was in the works. This was **A-6600-B3 Oil Pump Assembly (Bolted Cover Design)**. It was the exact same pump as A-6600-B2 except the cover was “bolted” to the Oil Pump Body (**Fig. 17**). This pump was “Adopted” and both pumps were used in production at this time.



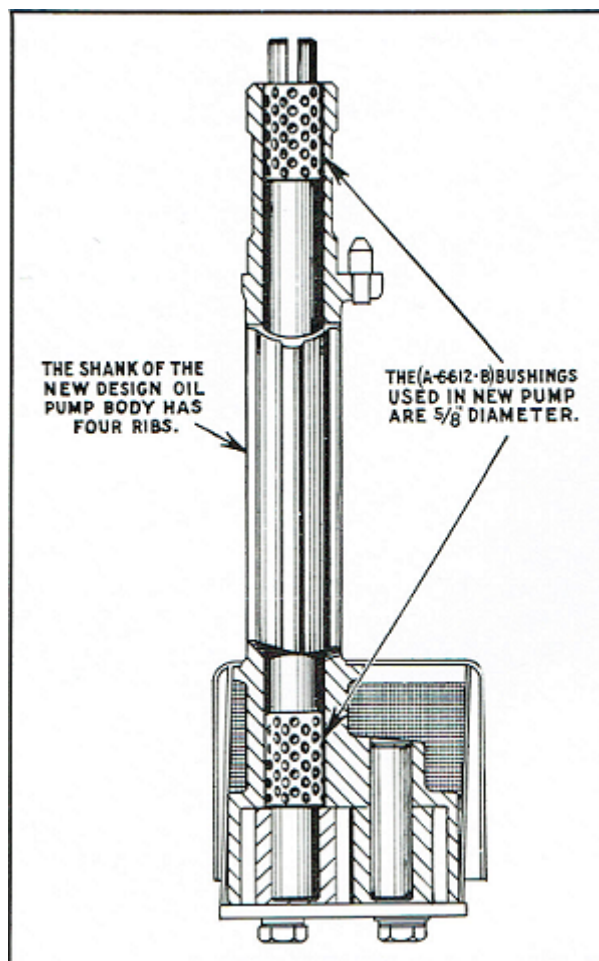
(Fig.17)

The Ford Service Bulletin for November 1929: page 394, indicated that there was a change in the oil pump body and bushings. This pertained to both A-6600-B2 and A-6600-B3 Oil Pump Assemblies above. *“The oil pump body has been changed from a forging (A-6600 and A-6600-B1) to a casting (A-6600-B2 and A-6600-B3) and the shank section of the pump ribbed instead of being made smooth” (Fig. 18).*

“The diameter of the shank on the old pump body is 13/16”; on the new pump body it is 1” measured across the ribs”.

“The bushings A-6612-B used in the new pump body are 5/8” in diameter. The bushings A-6612-AR used in the old pump body are 21/32” in diameter”.

“Mechanics must exercise care to make certain that the correct type bushings are used in these pump bodies”.



(Fig. 18)

The Ford Service Bulletin for February 1930: page 423, indicated a change and a precaution to always replace the oil pump retaining screen. *“Before installing an oil pan or clean out plate in one of the earlier Model A cars or AA trucks, be sure to replace the oil pump retaining spring (A-6620). This is very important. If the spring were omitted, it would allow the oil pump to drop down far enough to become disconnected from the oil pump shaft and this, of course, would cause the pump to fail and operate”.*

“To eliminate any possibility of a mechanic failing to replace this spring, a change was made some time ago (see April 20, 1929) by attaching the spring to the end of the pump. This was done by means of a retaining clamp (A-6618), as shown in Fig. 853”.

“However, in view of the number of cars manufactured prior to this change, mechanics must check each job on which they remove the oil pan or clean out plate to make certain they have replaced the pump spring”.

On April 12, 1930 Ford decided that A-6600-B2 Oil Pump Assembly was to become “Obsolete” and was “No longer used” in production.

On July 7, 1931 (PR# 20343) A-6631 Oil Pump Shield Assembly was “Released for models shown” **(Fig. 19)**...in other words all Model A/AA Ford engines were to have this feature. It also meant that there was a change to the A-6688 Oil Pan Tray **(Fig. 20)** at the same time in which the height of the bead that attached the tray to the oil pan was raised which lowered the tray itself within the oil pan by 1/8”.



(Fig. 19)



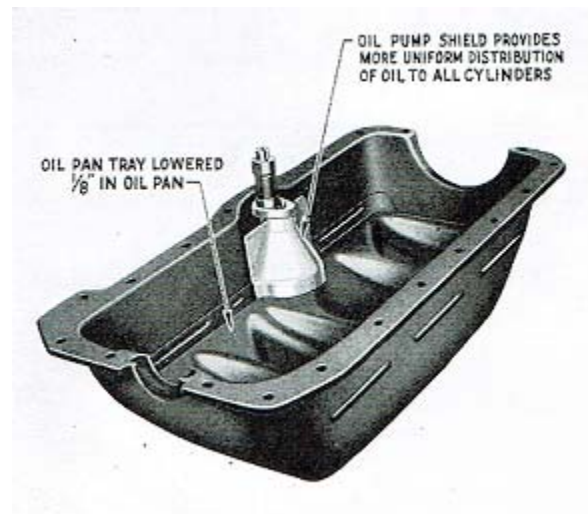
(Fig. 20)

The Ford Service Bulletin for July-August 1931: page 576, indicated “several improvements” in Model A and AA engines which Ford wanted to still further lessen oil consumption. “A shield (A-6631) is now provided which fits around the oil pump and insures a more uniform distribution of oil to all cylinders” **(Fig. 21)**.

“The oil pan tray (A-6688) has also been lowered 1/8”. This has been accomplished by correspondingly **raising the height of the bead in the oil pan tray**”.

“Under no circumstances install an oil shield without installing the new oil pan or vice versa”.

Included in the reduction of oil consumption was the reduction of the piston ring pressure to about 5 pounds.



(Fig. 21)

The Ford Indianapolis Service Letter for November 10, 1931: This letter indicated, for the most part, that of which was said about in the July-August 1931 Ford Service Bulletin. However was more specific about oil consumption and how to correct it by using the “new” type of pistons.

About the oil pump, it went on to say: “The parts which are affected by the change are: A-6688, Oil pan tray **(Fig. 20)** and A-6631, Oil pump shield assembly (new number and part) **(Fig. 19)**”.

“This is assembled around the oil pump to prevent oil splashing out of No. 2 and No. 3 connecting rod troughs. This part (A-6631) is to be used only with the new style A-6688 (Oil pan tray)”.

OIL PUMP	DATES USED	APROXIMATE ENGINE NUMBERS
A-6600 (Forging)	Start of Production through March 9, 1928	A1 through A43972
A-6600-B1 (Type 1) (Forging)	March 9, 1928 through April 7, 1928	A43973 through A74761
A-6600-B1 (Type 2) (Forging)	April 7, 1928 through April 20, 1929	A74762 through A1423304
A-6600-B2 (Casting)	April 22, 1929 through July 10, 1929	A1423305 through A1914191
A-6600-B2 and A- 6600-B3 (Casting)	July 11, 1929 through April 12, 1930	A1914192 through A3190183
A-6600-B3 (Casting)	April 13, 1930 through End of Production	A3190184 through A4830806

NOTE: Dates reflect the Part Release dates and do not reflect the actual release dates for specific Oil Pump Assemblies or related parts.

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