

Hercules Engine News

*Including Economy, Arco,
Jaeger & Thermoil*

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During their 20 years of production Hercules built engines featuring a wide variety of fuel mixers. Some mixers appeared only briefly, and others were in use for several years. In this, the first of three fuel mixer articles, five gasoline mixers will be covered.

In 1914 a few of the first model D engines had Lunkenheimer brass mixers. They were discontinued as the supply brought from Sparta, Michigan, was used up. Later, in 1922, the Lunkenheimer mixer reappeared as an option on ARCO engines. If the sprayers that the ARCO engines were on were operated on steep slopes, the check valve in the mixer would insure a proper fuel supply when the power stroke came. Such a mixer is shown in Figure 1.

In 1914 on most D models and the early E models, a "short J" cast iron type of mixer was used. Some had Patent Pending on them. Some had a lip inside the bottom of the opening to hold a small puddle of gas to aid in starting. A small spring around the fuel adjustment valve stem held the fuel setting in place. Such a mixer is shown in Figure 2.



Figure 1.

Later in 1914 the first "full J" type mixer made a brief appearance. Like the "short J," it too had the attaching threads cut onto the neck of the casting. There were breakage problems with that. There was a small square cornered tip protruding from the elbow of the J. The choke flap screw went into a blind hole in the intake opening lip. A spring wire rubs against the fuel adjusting knob to hold it steady. Such a mixer is shown in Figure 3.

Later yet in 1914 and through 1921, the E models featured the more common "full J" type mixer. The neck was modified with a heavy collar with a close pipe nipple cast into it for mounting to the engine head. You may get a surprise if you try to unscrew the nipple

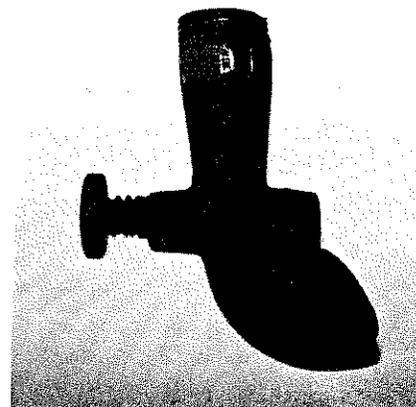


Figure 2.

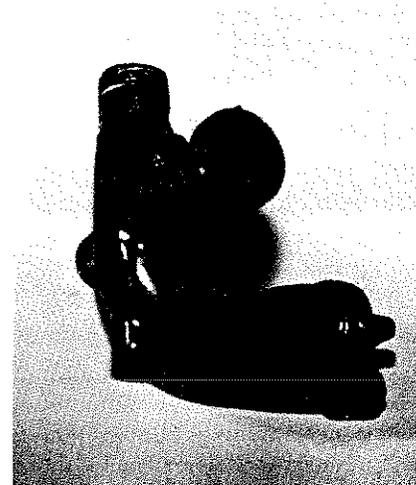


Figure 3.

Figure 4.



Figure 5.



from the mixer. The fuel adjustment remains the same. The mounting for the choke flap screw is modified so the screw sticks through where it can be peened to hold it steady. Such a mixer is shown in Figure 4.

Later in 1921 another version of the "full J" mixer appeared. The neck was slightly modified and shortened and the fuel valve position was changed slightly. A spring brass strip replaced the spring wire and was bolted to the mixer body and extended out to hold the fuel adjustment knob in place. This mixer was used until the end of S model engine production in 1929. Such a mixer is shown in Figure 5.