The Water Inlet Deflector is THE critical part which is key to the successful operation, and effectiveness of the Thermo-Siphon cooling system employed in the 1918-23 Essex F Head 4 engine. Many owners are not aware of this part’s existence due to it’s hidden location.

The Water Inlet Deflector is located behind the Water Inlet Elbow on the left side of the engine. It’s purpose is to guide the coolant flowing from the radiator between cylinders 2 & 3, then direct it to the hottest areas of the engine block around the exhaust valve pockets first, before spreading around to the other areas of the water jacket, and up through the head. The following article from the May 16, 1921 issue of “The Hudson Triangle” dealer newsletter is one of the very few pieces of surviving literature that shows the Water Inlet Deflector, and illustrates the coolant flow.
It is imperative that all Essex 4 owners check the condition, or even if the Water Inlet Deflector still exists, before continuing to run their car!

This part was originally made of thin mild sheet steel, and over the last 90 or so years has most likely deteriorated, or rotted away.

**WARNING:** RUNNING AN ESSEX 4 ENGINE WITHOUT A PROPERLY FUNCTIONING WATER INLET DEFLECTOR TO DIRECT THE COOLANT FLOW, WILL CAUSE CATASTROPHIC CRACKING OF THE WATER JACKET ON THE VALVE SIDE OF THE BLOCK!

The right half of the following picture shows the remains of the original Water Inlet Deflector that was in my 1920 Essex when I first purchased it in 2007. To the left is the new part that I fabricated out of 22ga. stainless steel to replace it.

Included with this bulletin is a detailed measured drawing provided by John Meadows of Victoria, Australia. He created this drawing using an original NOS Essex 4 Water Inlet Deflector. I used this drawing, & measurements to fabricate the stainless steel replacement you see in the above picture, and am successfully running in my car today.

If you have any questions, or need any further assistance, feel free to contact me:

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