

BACKWARD NEEDLE VALVES

on those thousands of cheap Testor McCoy redhead stunt engines?

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After all these years I think I've found the answer. Many if not most of those inexpensive 19, 29, and 35 sized McCoys went into control line ships and mostly into profile types. They were good engines, but they needed a small assembly change, which novice modelers might not quickly grasp. They came from the factory with the needle valve adjustment on the engine's right side, which was also the exhaust side. Worse yet, when mounted in a profile ship, this put the adjustment under the airplane, with the fuel line looping up and over the engine. To adjust, you reached under the right wing, through the hot exhaust, or you held the ship up and adjusted from a position up front with your face next to the spinning prop. Your fingers were then located in the narrow space between hot exhaust and spinning prop, occasionally infringing on their space.

Since neither of those alternatives was a top preference, most modelers removed the needle valve assembly and reversed it. This put the needle right on top on a profile ship and whichever way it was mounted, out of the exhaust. And the fuel inlet was now better positioned in relation to the tank outlet, regardless of engine position. Presumably, Testors was not out of touch, and since the production run was several years long, you'd think they would have considered a simple change to the assembly sequence to reverse the spraybar.

The answer is probably economics. The engines came in clear plastic boxes, which made nice looking displays in showcases. Looking at one of those engines in the box, they came with the needle and exhaust pointing up. They probably had thousands of those plastic boxes made up at one time. Had they reversed the needle assembly, the engines would simply not have fit in the molded boxes.