

**The 12 Port Story Pt. #5**  
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Our last installment found us spending time with Calif. Bill Fisher and the part he played in the history of the 12 port cylinder heads. This issue we'll continue on directly from Calif. Bill and visit once again an ole friend, Hoy Stevens of Fredericktown, Ohio. As you may recall from our last installment, Hoy Stevens was the man that bought out Calif. Bill Fisher and thereby obtained the patterns for the Horning-Fisher 12 port cylinder head.

Hoy Stevens is an old friend of all of us here at "The 12 Port News," having been a friend even before this humble publication was even thought of. We were all pleased to have Hoy as our feature for the very first issue. In that issue, some of Hoy's racing accomplishments were touched on, along with some of his mechanical and engineering prowess. For our purposes here in this series, "The 12 Port Story," we'll be directing ourselves primarily to Hoy's role in the manufacture and development of the 12 port cylinder heads. Hoy's many racing accomplishments, spanning parts of three decades, and the literally hundreds of stories and honestly wild tales will be left to another time.

The time is 1956. Hoy heard of the really outstanding success that Rolla Volstead was having, running one of Bill Fisher's 12 port powered GMC's, and he decided to contact Calif. Bill regarding the adding of that piece of specialty equipment to Hoy's already successful race car. It was in 1956, that Hoy first purchased a 12 port cylinder head. The upturn in Hoy's racing accomplishments was immediate. This began a run of years in which Hoy's sprint car achieved perhaps its greatest success and became the terror of the AARC racing circuit. Hoy's #37, with its fuel injected, Horning-Fisher 12 port powered GMC was a consistent winner on all tracks, again against such formidable competition as 270 Offies, fuel injected Merc's and those now famous (small block) Chevy V-8's. As Hoy had always done, he applied his mechanical and engineering know-how to this new powerplant and soon had the initial dyno reading of 276 h.p. up to over 300 h.p., from a 292 cu. in. displacement.

Hoy's most successful engine was a 302 block bored to 4 1/8", and using a 248 crank (3 13/16" stroke), to give 306 cu. inches. The large pistons area combined with the short crank, gave him better power at the higher R.P.M's, and was his best combination.

Hoy's racing career continued with great success. That first 12 port cylinder head continued to perform as solidly as the GMC block it sat on, going race after race, year after year. A correspondence naturally developed between Hoy and Calif. Bill Fisher, and that friendship and correspondence led Hoy to a point where he decided to take advantage of the fact that Calif. Bill wanted to move onto other fields and no longer produced 12 port cylinder heads. In Sept. of 1959, Hoy bought out Calif. Bill Fisher. (authors note: my apologize to the readers of our last issue, in which I mistakenly stated that Hoy bought our Bill Fisher in 1956. Actually, 1956 was the year that Hoy first purchased a 12 port cylinder head from Calif. Bill. A recent letter from Hoy has corrected me, and Sept. 1959 is the correct date for the complete purchase by Hoy Stevens of the patterns, blueprints and other supplies for the Horning-Fisher 12 port heads, from Calif. Bill Fisher.) Hoy purchase everything that Bill Fisher then had in stock, Calif. Bill did not sell anything at that time to anyone else. This did not include any 12 port heads, but did include the patterns and blueprints for the 12 port heads, the 2-piece valve cover, miscellaneous tools used in the machining process and other items such as special valve cover breathers. By this time, Calif. Bill no longer had any sizeable inventory left.

Along about this time, Hoy purchased a complete 12 port powered GMC engine for Mr. Al Arbough of Mt. Vernon, Ohio. This engine and cylinder head are now fully restored and are the powerplant for Mel Robert's sprint car (Hoy's old #37) featured in our #2 issue. This gave Hoy his second Horning-Fisher 12 port cylinder head.

It was 15 months before Hoy was able to produce any cylinder heads, using the patterns and blueprints he purchased from Calif. Bill. On January 18, 1961, the Franklin Brass Foundry of Columbus, Ohio, cast 4 cylinder heads for Hoy. The casting went smoothly and Hoy was in the 12 port head business. These four heads, all done at the same time, were the only ones that Hoy had cast. Hoy made no major design changes. Hoy's 12 port heads

were all cast in aluminum and all four utilized the cartridge fire spark plug design. This is the design that Wayne Horning had begun with, a design altered on some of the heads that Calif. Bill produced, to a long reach type of spark plug that communicated directly with combustion chamber. Actually, the 12 port head that Hoy purchased from Calif. Bill in 1956, was of this long reach type plug design.) Hoy radiused the underside of the valve seats (those figure "8" design cast iron seats) so that the aluminum could flow better around them. The valve seats were positioned at the time of casting and were "there to stay." This attention to detail, this application and blending of years of "field" experience with engineering knowledge, was always a trademark of Hoy's, and is one of those characteristics which is always mentioned when Hoy's name comes up in racing and engine building circles.

As a side note for identification purposes, the 12 port head Hoy purchased from Al Arbough and now residing in Mel Robert's restored sprint care, had some water setting on the valve seats and they were in bad shape and Hoy had them removed and had the head heliarced and the valve seats screwed in. This engine had the cartridge fire type spark plugs.

After getting the raw castings from the foundry in Columbus, Ohio, Hoy enlisted the assistance of the men at Triplex Machine and Design of Neward, Ohio, in the post casting, machining process. For those of you unfamiliar with rough cast cylinder heads, the amount of post casting machining is quite extensive. Here too, Hoy's inventive genius, his desire for the finest in his engine, led him to design, some new tools to assist in the machining process. Hoy made a tool to cut the combustion chambers all to the same exact depth. To do this, he cut the top off an engine block and used it as a jig. He also made an angle plate to hold the cylinder head while drilling the spark plug holes, so that a match could be affected with the dimple in the combustion chamber, a part of the machining process that generally was a problem area. Hoy also employed some post casting welding, to the combustion chambers to correct any small flaws from the casting process. He also utilized the same special valve guides that Calif. Bill had incorporated in his heads. These were made by the "Hub City Iron Co." of Aberdeen, South Dakota. Hoy ordered these in November of 1960, and they filled his order with exactly the same type of guides they had made Calif. Bill in 1955.

Hoy recalls that one of the four cylinder heads he had cast was sent to a racer in Canada, another was sent out West. The records of Hoy's customers are no longer available, but with the help of all you readers, we're certain more information will turn up. One piece of good news that has turned up is this: Mr. Frank Istrice of Sparks, Nevada, owns a Horning-Fisher 12 port head, which he lent to Charlie Baker this summer, Charlie has been able to identify this head as one of the four that Hoy had cast. This identification was made possible by comparing the machining marks on the head. (Remember those special tools Hoy produced, another were rounded shell reamers for the intake & exhaust ports.) So one down and three to go.

The year 1962 saw the closing of one of the finest racing careers of one of the finest racing careers of that era. This was Hoy's last year in racing. It brought to a close one of those great partnerships, a partnership that brought success to both partners. Who were those partners? None other than Hoy Stevens and the GMC six cylinder engine. Hoy ran "Jimmies" for parts of two decades, and even today his respect for that old truck powerplant is as strong as ever. Hoy still feels that the GMC six cylinder was one of the very best things ever to come out of Detroit. Hoy continued to run his Pontiac dealership until 1968, when he retired. He had begun that dealership in 1940, after 5 years as a body shop owner. Hoy now spends his summers in Ohio and his Winters in the sunny South, hauling his Airstream trailer up and down the highways of America, much as he hauled that old #37 sprint car for so many years.

However, the story doesn't end with Hoy driving off into the sunset. After many years of setting back in Hoy's home shop, those patterns and blueprints for the Horning-Fisher 12 port heads, are once again seeing the light of day. Once again they have changed hands, and once again new 12 port cylinder heads are being produced. The story of the latest exchange and the story of "12 Port Charlie" Baker, his company Vintage Development and Design of Nevada, Iowa, will be the topic of future installment of this series, and an interesting story it is.

Hoy Stevens added to the history of the 12 port cylinder heads in so many way: his attention to detail in the casting process, his development of special tools for the machining process, his many successes on the race track,

and certainly no the least of which was his additional production of four new cylinder heads. His careful storage of the patterns and blueprints for these past 20 years and his great assistance and full cooperation in the current production and machining process of the Horning Fisher 12 port heads is a debt that all "Jimmie" and 12 port cylinder head fans, owe him. A debt well recognized by your author and by the current owner of those well traveled patterns and blueprints, first produced by Wayne F. horning. Our thanks go out to Hoy, as does our recognition of his efforts and his successes in both the racing and engineering fields.



Hoy Stevens- incomparable racer, innovator and restorer, also one-time owner of the Horning-Fisher 12 Port patterns. We honored him with INLINERS INTERNATIONAL membership #001