

The GEMSA Engine

NOT CONTENT WITH THE PRODUCTS OF OTHERS, THIS MAN BUILDS HIS OWN



The Vintage Ford will not normally include stories of "hot rod cars, but we make an exception this time because of the special interest of this particular car and its owner.

The Model T Ford that took the fastest time on the Hill Climb was the 1926 touring owned by Doc Pruden and which was powered by an engine which was designed and built by Joe Gemsa. Doc's car beat all challengers including some pretty hot speedsters with very light bodies (if they had any bodies at all). The secret, of course, was the engine, and we think you might find its story interesting.

This car, while having a Model T body, is not a T in any other way. The engine block is Model B Ford. Almost everything else in or on the engine is the product of its designer, Joe Gemsa. Joe made the crank from a steel billet. It features five main bearings, supported by the three originally in the block and by two more welded in place. All bearings are two inches in diameter (including the rod bearings).

The head is all aluminum. It features an overhead camshaft, chain driven from the crankshaft, actuating two-inch valves which open into two-inch ports! There is a separate port for each valve. *The valves seat in the aluminum head with no inserts, and have seats which are 5/32 wide!* Joe says that he has had no trouble with the seats or valves burning due to the extremely good cooling of the valves when they seat in the head.

Ignition is dual, using two distributor-coil setups feeding two sparkplugs in each cylinder.

The engine has 242 cubic inches displacement and has a compression ratio of 12¾ to 1! Horsepower, measured on a dynamometer, is 270 HP(!) at 6500 RPM.

This engine, in a dragster, ran the quarter mile in 1963 making 125 MPH with an E.T. of 10.94!



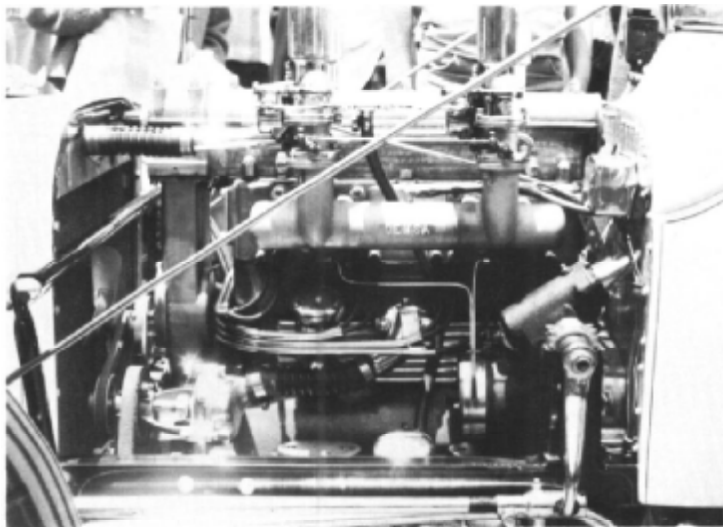
The engine is connected to a '39 Ford transmission which, according to Joe, is to be replaced with something stronger because he has gone through seven of them so far. The frame is of his own design and weighs only 68 pounds. The rear end is made of Model A housings, and runs Model A gears, but the other parts are of his own making. Axles are from a '26 Hudson.

Joe Gemsa did all of this in his own garage! He is a retired race driver (of sprint cars on dirt tracks). He held the American Racing Association Pacific Coast Championship in 1951.

While the car could not run for a trophy, it did go for fun and ran the course in 7.2 seconds. The fastest T, Doc Pruden s, made it in 8.88.

Joe built his first overhead for a Model A in 1947. A race car, using that engine, won a race when entered in 1948.

Some time ago, a few friends talked him into building some heads for T s, and he tooled up for twelve. These were made by modifying



the head casting used on the B s and drilling the bolt holes in the right places to fit the T block. Joe says there will be no more made.

Doc Pruden s car uses one of the twelve heads. Joe built Doc s engine using a stock Model A crank with counterweights welded on. The crank was not shortened as is the usual custom, but the pan was altered so that the block could be moved forward 5/8 allowing the use of the standard T transmission. The engine uses stock A rods with special pistons (built by Joe) with the pin set high. The pistons are 3½" high and use two compression rings above the pin and one oil ring below the pin. The engine has a displacement of 200 cubic inches and develops 200 HP at 5200 RPM.

Doc s engine uses a special camshaft in the block with pushrods to operate the overhead valve setup. Not as fancy as Joe s, perhaps, but believe me, it goes!

In a future issue, we will show you what another genius is doing along similar lines.



THE ANTIQUE AUTO MUSEUM of Columbus, Ohio

This fine collection of Antique Automobiles was opened to the general public on July first of 1965. The Collection includes a 1901 curved dash Olds, a 1902 McIntyre High Wheeler (of which it is claimed there are only two), a 1911 Maxwell roadster, a 1929 Rolls Royce which cost over \$25,000 when new, and a 1930 Packard sport roadster to name but a few. Unlike some museums, these cars are all restored.

In addition to the car collection, they have one of the world s largest collections of factory owner s manuals, sales literature and trade magazines. And just to make sure they don t overlook any of the interesting things that were contemporary or earlier, they have a radiator emblem collection, a cut glass collection, a doll collection, Indian relics and old clothes back to the days of George Washington.

During the summer, the Museum is open every day of the week except Monday, when member Leonard Finelli rests up!