1973 Pontiac Firebird 455 Trans AM

The second generation Firebird debut delayed until February 26, 1970, because of tooling and engineering problems; thus, its popular designation as a 1970 1/2 model, while leftover 1969s were listed in early Pontiac literature without a model-year identification. Replacing the "Coke bottle" styling was a more "swoopy" body style, with the top of the rear window line going almost straight down to the lip of the trunk lid — a look that was to epitomize F-body styling for the longest period during the Firebird's lifetime. The new design was initially characterized with a large C-pillar, until 1975 when the rear window was enlarged. There were two Ram Air 400 engines for 1970: the Ram Air III (335 hp, 366 hp (273 kW) in GTO) and the Ram Air IV (345 hp, 370 hp (280 kW) in GTO) which were carried over from 1969.

The difference between the GTO and Firebird engines was the secondary carburetor linkage which prevented the rear barrels from opening. Bending the linkage to allow full carburetor operation resulted in identical engines. A distinctive, slant-nose facelift occurred in 1977, redone somewhat in 1979. From 1977 to 1981, the Firebird used four square headlamps, while the Camaro continued to retain the two round headlights that had previously been shared by both Second Generation designs. Curb weights rose dramatically in the 1973 model year due to the implementation of 5 mph (8.0 km/h) telescoping bumpers and various other crash and safety related structural enhancements; a SD455 Trans AM tipped the scale at a whopping 3,850 pounds curb.

The 455 engine available in the second generation Firebird Trans Am was arguably the last high-performance engine of the original muscle car generation. The 455 engine first made its appearance in 1971 as the 455-HO. In 1973 and 1974, a special version of the 455, called the SD-455, was offered. The SD-455 consisted of a strengthened cylinder

block that included 4 bolt main bearings and added material in various locations for improved strength. Original plans called for a forged crankshaft, although actual production SD455s received nodular iron crankshafts with minor enhancements. Forged rods and forged aluminum pistons were specified, as were unique high flow cylinder heads. A 1967 GTO Ram Air camshaft with 301/313 degrees of advertised duration, 0.407 inch net valve lift, and 76 degrees of valve overlap was specified for actual production engines in lieu of the significantly more aggressive Ram Air IV style cam that had originally been planned for the engine (initially rated at 310 hp (230 kW) with that cam), but proved incapable of meeting the tightening emissions standards of the era.

1974 Firebird Formula

This cam, combined with a low compression ratio of 8.4 (advertised) and 7.9:1 actual resulted in 290 SAE NET HP. The initial press cars that were given to the various enthusiast magazines (e.g., Hot Rod and Car and Driver) were fitted with the Ram Air IV style cam and functional hood scoops - a fact that has been confirmed by several Pontiac sources although none of those sources are listed here. There is still some controversy about what cam was used in the early press cars due to an article written by Jerry Heasley for Muscle cars magazine titled "Mexican Shootout." Mr. Heasley did not start out with the intention of addressing that question, but in an odd turn of events, he did just that. It all started with a "shootout" between a 1973 SD455 Trans

Am and a 1967 440 Dodge Coronet R/T set to take place at the Houston International Raceway in Texas.

The R/T backed out at the last minute so Heasley decided to run Mike's 81K mile stock Trans Am for comparison against the times that had been published by Car and Driver magazine back in 1973. Out of three runs, Mike bettered the times published by Car and Driver twice, with a best run of 13.75 seconds. While some actual production test cars ran considerably slower and yielded 1/4 miles times in the 14.5 second/98 MPH range in showroom tune - results that are quite consistent for a car with a curb weight of 3,850 pounds and the rated 290 SAE NET HP figure that some sources suggest was "under-rated," High Performance Pontiac magazine dyno-tested an SD and gave it an honest 371 SAE Net rating. Pontiac offered the 455 for a few more years, but tightening restrictions on vehicle emissions guaranteed its demise. Thus, the 1976 Trans Am was the last of the "Big Cube Birds," with only 7,100 units produced with the 455 engine.

1968 & 1969 Pontiac Firebird Convertibles

Back To G.M