

# RAMMING AIR TO A FIREBIRD TO MAKE IT FLY



When Pontiac hit the market with their Firebird a few months back, part of its quick appeal to buyers came as a result of the wide range of powerplants immediately available. Five engines—from a pair of spirited 6s, to two intermediate-sized 326-cu.-in. V-8s, and on to a 325-hp, 400-cu.-in. V-8 that smacks of GTO parentage—fill the list that should offer the right combination for even the most hard-to-please enthusiast.

Far and away the most powerful—and most interesting—is the Ram-Air-equipped, 325-hp (a conservative rating to be sure), 400-cu.-in. V-8. We were able to pick up the first two Ram-Air cars built from Royal Pontiac in Royal Oak, Mich. The word “built” is the best description of how these two cars came about. Milt Schornack, Royal's Performance Manager, found he couldn't get Ram-Air cars without a long wait, so he simply took cataloged parts and bolted 'em on.

Both 'Birds were ordered and “built” identically, except for transmissions. One had the 3-speed Turbo Hydramatic, and the other a close-ratio (2.20:1 low) 4-speed gearbox. The matching equipment consisted of handsome gold paint, complete instrumen-

tation with outside, hood-mounted tachometers, Wide-Tread tires, H-D suspensions, 3.90:1 rear axle ratios, AM/FM radios, tilt-a-way steering columns and Hurst shifters.

The Ram-Air equipment installed by Royal mechanics Dave and Sid Warren is the same as optional on factory-built cars. It consists of a new cam with longer intake and exhaust valve duration, and more overlap. This raises the power peak to a higher rpm, and the new valve springs with flat metal dampers combine to allow 6000-rpm engine speeds without fear of float. The most obvious part of the package is a shroud pan fitted around the opening of the Quadrajet 4-bbl. carb, and sealed to the underside of the hood with a thick foam rubber lip. The pair of scoops on Firebird 400 hoods are then opened up, and fresh, cool outside air is fed to the carb. Ram-Air Firebirds have an added feature over GTO models, in that 428-cu.-in. V-8 exhaust manifolds are included. They're cast iron, of course, but somewhat larger than the 400-inch items, and have a better runner design with the outlet angled rearward instead of straight down.

While they were fitting the Ram-Air packages, the brothers Warren also added Royal's own Bobcat Kit. This is basically a “fine tune” for the engine, bringing it closer to factory specifications than most stock engines are. Pieces include a pair of thinner head gaskets to raise compression slightly, blocked heat-riser intake manifold gaskets, special rocker-arm lock nuts to allow the hydraulic lifters to be adjusted full height, .050-inch-larger primary carburetor jets and instructions on how to get the secondary chambers to open sooner, an ignition kit consisting of lighter distributor springs and weights to allow quicker full advance, and a set of tailored-to-the-car spark plugs. An optional part of the kit treatment for local Royal customers is machining the heads for proper cubic centimeter displacement in the combustion chamber. The minimum allowable is 65cc, and Milt has never had a production car come through with that size—always larger. For out-of-the-area customers, instructions are supplied for this job with a caution to have only qualified personnel do the work.

As “fine tune” as the kit may be, Pontiac has unfortunately handed down

Automatic or 4-speed, the difference is marginal. Both cars registered over 2-dozen 100 mph-plus ¼ miles with alacrity.

the “word” that installation of the Bobcat Kit voids the 5-year/50,000-mile warranty. They've never had any real trouble with it, but this is the first year of the long-term warranty, and they're just a little hesitant about what effect the kit will have over the long run. Sales on it haven't dropped though, and Schornack figures those who buy it aren't as interested in having their water pumps fixed free in 4½ years as they are in winning races now.

Besides wanting to find out whether the stick or automatic was the better runner, we came to Detroit with an idea that the Firebird—in a comparable form—should outrun a GTO. We had tested a pair of super-hot GTOs for our Jan. '67 issue, and so had a good comparison. The only thing different with the 'Birds was that they didn't have tube exhaust headers, so we felt a bit less enthusiastic about our “idea” after we saw the cars than before—but we were to be surprised.

In strictly street-worthy form—tires, wheels, plugs, exhausts, etc.—the 4-speed ran the quarter in 13.99 secs., and registered a speed of 105.01 mph. And this was done in the face of a strong headwind blowing as a result of

a tornado watch. The automatic car didn't do as well (to our dismay) clocking a 14.05-sec. e.t., and 102.85 mph. We then popped a set of 7-inch slicks on each car and came up with a 13.24-sec. elapsed time and a speed of 106.50 mph on the 4-speed, but only a 13.60-sec. e.t. and 104.40-mph reading on the automatic. Both cars then received a new set of spark plugs, and open exhaust via the drop-the-tailpipe-from-the-headpipe method. Here's where the 4-speed really did the trick, blasting out a 13.05-sec. e.t., and a top-end time of 109.23 mph. This is where the automatic fell ill though, dropping back to around 14 secs. flat, and practically nothing on top end.

A teardown back in the garage revealed that the ignition system had experienced some difficulties, and the primary feed between coil and distributor was practically nonexistent. The trouble had been with it for some time, but only showed up under the pressure of high-rpm, quarter-mile blasts.

Hands down, the 4-speed won the event, both over the automatic and our earlier tested GTOs. We feel sure that had the Turbo Hydro car been running right, it would have bettered the 4-

speed in street condition, but suffered the fate of loser when slicks and open exhaust time came around. The Hydro-equipped Firebird has much better—and more controllable—low-end traction with street tires, but weight and drag of the automatic serves to restrict top end. Only 100 pounds separates the two: 3460 pounds on the 4-speed, 3560 for the automatic.

We didn't have a chance to stick around and rerun the cars without the headwind handicap, but Milt Schornack reported both cars ran sub-13-sec. times and 110-mph-plus speeds the following week. And he's an honorable sort who wouldn't tell us any lies.

If we had to pick one of the two for street-and-strip action, we'd take the automatic. It's much easier and less tiresome to drive, and for normal weekend-warrioring, it'll do the job in class runoffs.

We had no trouble deciding that these two cars were “stormers,” to the point of outrunning GTOs. They proved that for us. They'll probably grab a few GTO customers, but there's no great loss here as Pontiac gets the nod either way. They're pretty happy about having both, and we can see why. /MT