

DRIVING THE LATE SHOW

The AAR 340 'Cuda arrived too late for the Showroom Trans-Am Contest. Too bad; the car can hold its own against the others in its class.



THE OTHER entrants are out of sight, around the first turn in a cloud of dust and tire smoke. Out of the pits comes the AAR Barracuda, Plymouth's offering for the showroom Trans-Am market. Can the triple-carb 340, the revised suspension, the biggest tires in the field, make up for lost time?

No, because the rules clearly disqualify late entries in CAR LIFE's Showroom Trans-Am Championship. But if they didn't, or if the Barracuda had been ready when the flag fell, things might have been different.

Back to the past for a minute. Last month, we invited all the factories whose cars will be competing in the Trans-Am to take part in a group test, a comparison of the production cars as racers. We got a Z/28 Camaro, a Boss 302 Mustang, a Trans-Am Firebird 400 and a 360 Javelin. We pitted them against each other in a drag race, a braking contest, and on the skid pad. Then we built a slalom course and ran them against the clock. The Z/28 won the most points and the contest was over.

The Plymouth entry then arrived. It's named the AAR Barracuda because Dan Gurney is building and driving the

Plymouth Trans-Am team and his firm is All-American Racers. The AAR is quite a car. It has some good stock pieces, like the 340-cid V-8 that's the basis for the racing engines. The race-listed production 340 has a beefier block, to take racing stress, and revised cylinder heads, to allow port reshaping. And there's an Edelbrock manifold with three two-barrel Holley carburetors, good for the street and a rated bhp of 290 although the SCCA only allows one four-barrel.

On the outside, there is a cold-air scoop, which works on road or track (unpaid advt.) and a rear spoiler that works at racing speeds. The front tires are E60x15, and the rears are G60s. Yes, bigger tires in back. Raked when it comes from the showroom, and the extra rubber in back helps traction on starts and on corners.

There is one dumb item, some side-exit exhaust pipes. Very fake. The exhaust pipes run all the way back to a big muffler under the trunk. The muffler turns everything around, and the exhaust comes back toward the front of the car, then kicks sideways into chrome cans just ahead of the rear wheels. The actual pipe is hidden inside

the can. The whole thing is heavier and less efficient than the old way.

For shame.

But more than compensating for that is the rear anti-roll bar we were promised months ago. It's perfectly straightforward, being a bar mounted to brackets bolted on the frame rail above the rear axle. A link goes from each end of the bar to another bracket at the spring perch. Looks like seven parts, some bolts, a drill and wrenches and any 1970 Barracuda, maybe even the older ones and Valiants and Dusters, too, can have one.

It took some time, but Plymouth went a long way toward putting the Barracuda fan into a street version of the racer he roots for. It's too bad that we can't count any of the following results in our championship. Remind yourself that the times and findings aren't official.

This particular car had been prepared for tests other than ours. While we asked for final drive ratios of 3.9 or 4.1:1 on our Trans-Am candidates, the factory delivered our AAR with the 3.55:1 gearset standard for the 340 Barracuda. And the car had a Super-Stock clutch. We are told that the PR



PHOTOS BY PAUL FREILER

people fear to have the reckless press thrash stick 340s without it. It works, at the strip, but it grabs and snaps at low rpm. You can't get one with the showroom AAR, and you are lucky.

Otherwise, the AAR fitted the pattern, with a four-speed manual transmission, power-assisted steering and disc front brakes. The 340 engine and the test weight of 3575 lb. put the AAR right in the middle of the group.

Until the light went green. The tough clutch and big rear tires let the hammer drop like Thor's. And the shifter was a light one, perhaps the lightest we've tried on a Mopar. Off the line at 4000 rpm and a trace of wheelspin and through the gears like Grant through Richmond, to an E.T. of 14.50 sec., at 98.68 mph. A dead heat with the lighter, inchieer Z/28, and faster than the others.

It doesn't count, of course. But the AAR is quicker than the average 340 'Cuda. Our test 340 with automatic and 3.55 went 15 flat. The triple carbs work.

But don't complain about our rules, Mopar fans, not yet. On the first stop from 80, the AAR went 326 feet, third out of five. And the brakes went rapidly

downhill from there. The rear brakes faded so far the warning light—meaning no pressure—came on. The eighth stop was a coast of 737 feet, the longest recorded since we began measuring stopping distance. Yes, the racing cars can use aftermarket brakes, and rear discs. Why do you ask?

Happier days at the skid pad. Wrong though this sounds, increasing roll resistance at the rear of a car, which is just what a rear anti-roll bar does, increases the grip of the front wheels, just what the Barracuda needs. Increasing the size of the rear tires increases the grip of the rear wheels. Presto, the AAR gains all the way around.

The skid pad is more a test of driveability at the edge of traction loss than it is a measure of lateral traction. Any car worthy of the name will go around the circle faster with front, rear or both sets of tires sliding than it will with no slide at all.

The Barracuda tested earlier this year had cornering power, but its front weight bias and lack of a rear anti-roll bar caused it to plow, first, last and always. With the front overcome, the back never gets a change to use what cornering power it has. The AAR sus-

pension balances, as well as improves, the handling.

There was initial understeer, but less of it. The front could be kept straddling the circle while the rear wheels drove the car faster and faster.

Characteristics were parallel to the Camaro and Firebird, which both also had understeer at the relatively low speeds obtainable on the skid pad. The Boss Mustang was nearly neutral, and had the best readings. The Javelin oversteered, the tail of the car coming out before the front slid off the line.

In figures, the AAR recorded a lateral "G" reading of 0.75 to the right, and 0.64 to the left, for an average of 0.695. Not quite as good as the Mustang's 0.73 or Camaro's 0.72, but better than the Firebird's 0.69, to put the Barracuda back into contention.

The main event in the group test was a slalom course, a snakey 0.8 mile challenge laid out on and through Digitek's brake test area, around the skid pad, out onto the road course through a nasty switchback and back through a chicane. The idea was to compare acceleration, braking and handling, at speeds from 10 to 80 mph, in one test. ▶



AAR insignia heralds All-American Racers, Dan Gurney's racing organization, which runs 'Cudas in the Trans-Am.

Building a custom track is fine. Building a duplicate three weeks later is risky. It looked the same, or at least the second course looked as we remembered the first course. But even a minor change, one corner tighter than it was, the straight parts a few feet longer, can alter the timing by the fraction of a second that makes all the difference.

On times, the Barracuda had a best

of 0:59.4, or exactly one-tenth of a second quicker than the Firebird, which won the group slalom.

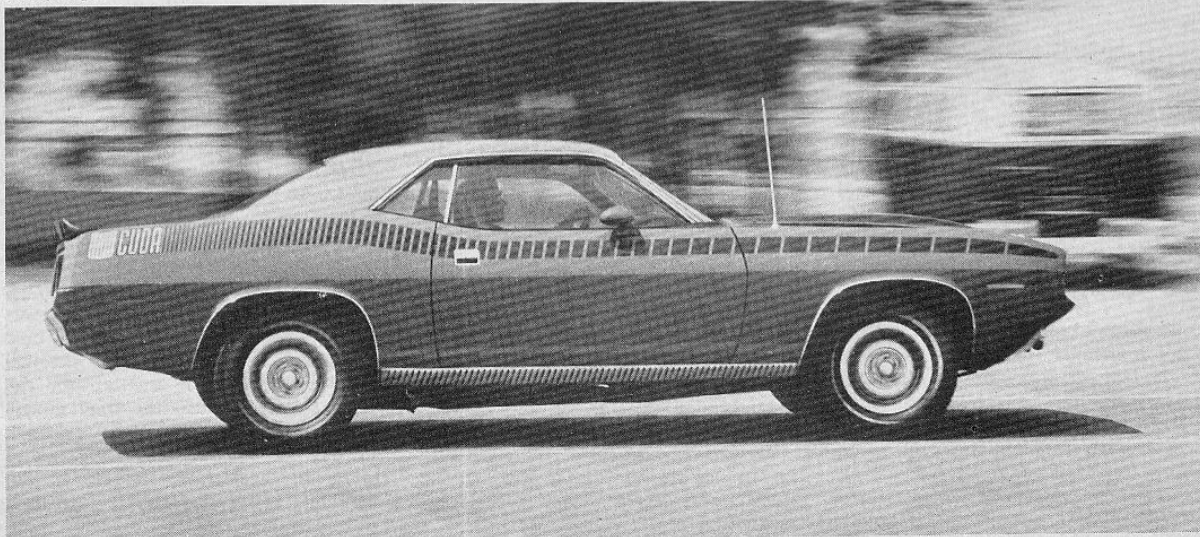
Mind, we are not telling you the AAR was the quickest. We cannot.

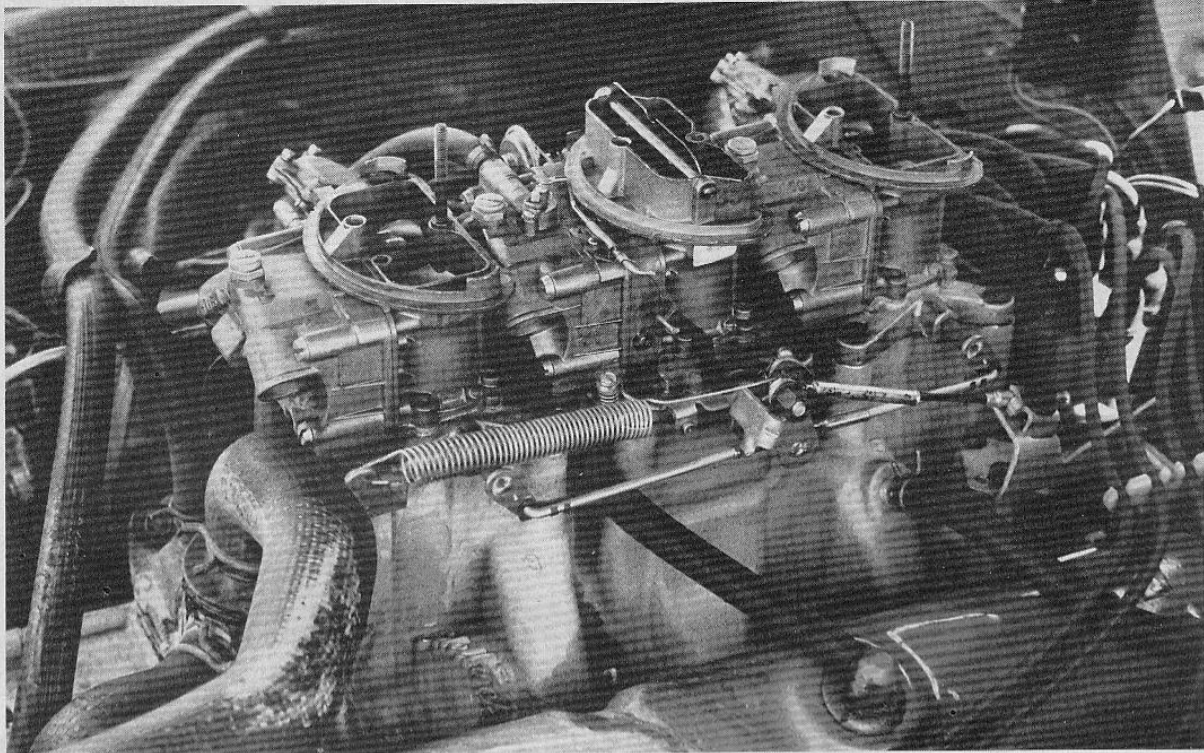
But it surely did feel quick. The Javelin worked on the tight bits, but couldn't use its power elsewhere. The Mustang ruled the skid pad, but couldn't use all its power coming out of

the corners. The Camaro could, but had crippling axle hop on braking. The Firebird didn't, and won.

The Barracuda was neat through the chicane and tidy around the skid pad. Full power the rest of the time. As speeds went up, the plow went away. The big tires belted the car out of the corners, and braking power was there while the short distances involved

NATURAL rake of AAR due to bigger tires in back, stiffer rear springs.





THE Six-Pak, on an Edelbrock designed manifold. Response was quick, sure, even with stock vacuum-operated linkage.

didn't give the brakes a change to fade away.

In day-to-day terms, the AAR is a 1970 Barracuda, which does not win it our unqualified approval. The seats and seating position were the worst of the five. The ride is acceptably firm. Noise level was lower than it was in the Mustang or Javelin, higher than in the Camaro or Firebird.

The philosophical point concealed in the group comparison was that the Trans-Am racers are not showroom Ponycars with the mufflers taken off. They are racing cars professionally constructed around a loose interpretation of what a production car can become if somebody wants to win road races with it.

Whether the AAR Barracuda is or is

not the starting point for the winner of the Trans-Am series, it is the equal of its showroom competitors. And it is the Barracuda to buy if you want a road car capable of doing what an enthusiast wants to do with the open road.

Before, if you liked a Ponycar, you had to wait for better performance. With the AAR, Chrysler did the job in only six months, and did it well. ■

AROUND circle to test steady-state cornering ability, AAR was fine, generating a high "G" factor.

