CARS ROAD TEST

FASTBACK FUN CAR

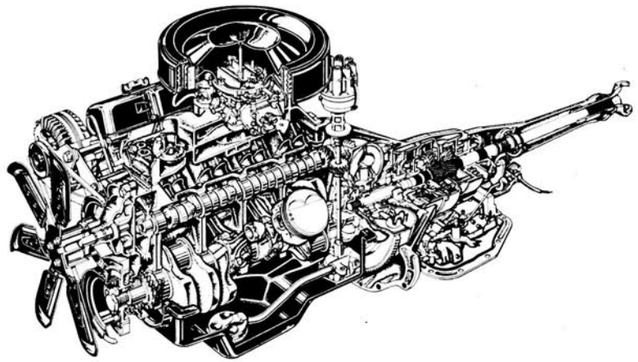
Plymouth is out to win supercar buffs over with its 340-inch Formula S sportster that's short on cubes and long on handling and power

BY MARTYN L. SCHORR

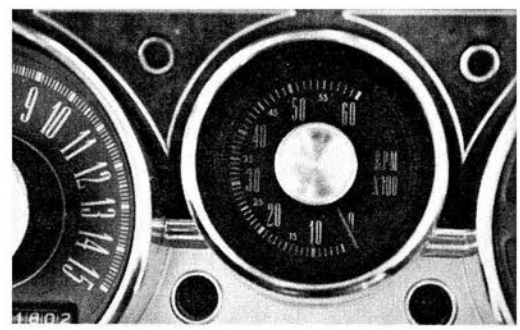
Four-speed 340 'S' Cuda is really at home on the backroads where you can kick out the rear wheels and play hero driver.

THE '68 Barracuda 340-cube Formula S is a fun car. One of the few real fun cars being manufactured in this country today. It's the kind of machine that's at home in traffic, when making tracks on your favorite non-patrolled backroad, or when negotiating the quick and narrow. In the venacular of today's youth, "it's all hair, man."

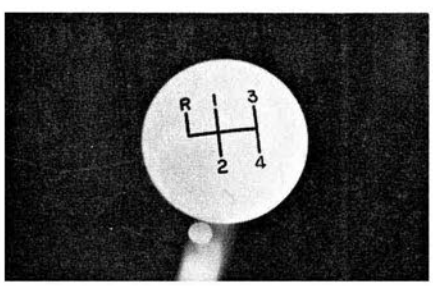
One only has to look at the Barracuda to know that it's a fun car. It has everything going for itself. Take the fastback coupe shown here, one of two '68 models we put through their paces. Dig those neat rectangular parking lights, the split grille treatment and the super-sano rear deck treatment. Then open the doors and feast your eyes on the well-in-



Small cube 340 is latest and most potent member of the 273-318 family.



Styling of new Cuda represents a pleasant compromise of asthetic continental and economical Detroit features. Split grille and bonnet treatment is super-neat. Well instrumented interior places "el cheapo" factory tach directly in front of the driver. Dash and door sport vinyl woody trim



Gear changing is bearable thanks to Hurst shifter. Flexible engine is right there with four-on-the-floor. Rectangular grille-mounted blinker is current Motown styling rage.

strumented "woody" dash, the map pockets and rolled and pleated upholstery and, on four-speed cars like ours, the Hurst stick. Add all this to a ripe selection of engines, reasonable transmission options and a pretty rugged torsion bar suspension and you come up with a fun car.

But what really makes the Formula S Barracuda a fun car is the new 340-cubic-inch engine. It's a sensible size, (weight and exterior dimensions) very flexible junior supercar mill with all kinds of untapped performance potential. And, it goes damn well for a stocker which is more than we can say for some of the King Kong supercars that the Corporation has been pushing.

Like most of the jaded performance Press, we never really paid that much attention to the 340. From all indications it looked like a Mickey Moused 273, and we had our fill of that played-out *Mope*. But our opinion of the 340 changed considerably while we were road testing a 426 Street Hemi Road Runner. Like some broad pulled up to our light with a four-speed Barracuda and when the green came on she promptly and without much sweat we must admit, blew our doors off. We didn't catch her until the top of Third gear and with 3.50 gears in a 426, that's moving. Sometimes you gotta learn the hard way!

The only reason we had two '68 340 test cars was that Chrysler-Plymouth felt that we should try out the coupe even though the fastback has always been our favorite. And it still is. The coupe just doesn't make it. It comes off like an expensive, overloaded Corvair, which is bad news from any standpoint. Both cars (coupe and fastback) seem to have the same basic handling and performance characteristics, although possibly the fastback lines and spoiler styling might have some affect on ultra top end speed and handling. But we sincerely doubt that very many of these cars sold to the public ever end up on the high speed circuit tracks.

What impressed us most about the 340 package is the way it responds to all types of demands. It's docile enough for the daily supermarket sweepstakes, yet with four-speed and the right gears (to 3.91) from the factory) it's flexible enough for straightline bang shifting or sporty car up and down shifting. Both cars were fitted with the front disc/rear drum brake package, power assisted, of course, which afford the driver with 314 square inches of brake swept area for maximum high speed control. The suspension is of the tried and true torsion front leaf spring rear which means a dampened boulevard ride with good directional control and pleasant steering control (power-assisted).

Basically it's a neutral handling machine that can be thrown into controlled drifts once one learns the correct heel-toe gear selection patterns. However, the Carter AVS (air valve secondary) four-barrel is really not a performance-oriented fuel feeder—especially for sports car performance. And when really throwing our fastback into some point-of-no-return corners, we learned this little fact the hard way. The floats tend to hang up, the engine runs out of fuel and you blow the whole thing. And to boot, the power steering naturally conks out and you end up in the *toolies*. But then again, what do you expect for 3,500 dollars?

The new 340 engine is an interesting substitute for cubic inches. When properly tuned it'll hang right in there with similar machines displacing up to 390 cubes. And, it's a far more enjoyable and rewarding rig to drive than the same Formula S Barracuda with the heavier 383 engine. Some of the good stuff that the Corporation stuffed into its lightweight breadwinner of the 273-318 engine family are 10.5-to-1 pistons, an oil windage tray (good for 10 hp) to cut down on aeration and unnecessary crank friction, a Hemi-style double roller timing chain, high-rpm valve train and a dual-level cast-iron quad setup.

One interesting feature is that there are two camshafts for the 340, both hydraulic, but one a little hotter for the more flexible four-speed version. The cam used in our test car checked out at .445 inches lift, 276/284 degrees duration and 52 degrees overlap. The slightly milder auto trans cam checks out at .430 inches lift, 268/276 degrees dura-

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1968 PLYMOUTH BARRACUDA SPECIFICATIONS

ENGINE

Type	OHV V-8
Displacement	340 cubic inches
Compression Ratio	10.5-to-1
Carburetion	Single Carter AVS Quad
Camshaft	Hydraulic, .445-inch lift
Horsepower	275 @ 5000 rpm
Torque	340 foot/pounds @ 3200 rpm
Exhaust	Headers, dual pipes
Ignition	Dual Point

TRANSMISSION

Make	Four-speed manual
Control	Hurst Floor shift

REAR END

Type	Sure-grip (8-3/4-inch ring gear)
Ratio	3.55-to-1

BRAKES

Front	10.80-inch power-assisted discs
Rear	10.00-inch power-assisted drums

SUSPENSION

Front	Independent, HD torsion bars, HD shocks, sway bar
Rear	HD Multi-leaf springs, shocks
Steering	Power-assisted
Overall Ratio	18.8-to-1

GENERAL

List Price	$2983
Price As Tested	$3550
Weight	3350 pounds
Wheelbase	108 inches
Overall Length	192.8 inches
Tire Size	E-70 x 14

PERFORMANCE

0 to 30 mph	N/A
0 to 60 mph	7.1 seconds
Standing ¼ mile	96 mph
Elapsed Time	14.60 seconds
Top Speed	112 mph (EST)
Fuel Consumption	12-15 mpg

quire much greater forces for the impact tests.

New York was the first state to pass mandatory helmet laws for motorcyclists. As of this writing, an additional thirty states have passed such laws with another ten pending. Twenty of the total of twenty-seven states with standards already established have accepted a standard basically similar to the Z90 standard, but requiring single impact testing as opposed to double impact testing. Additionally, the Motorcycle, Scooter & Allied Trades Association have adopted, and now recommend, a single impact testing standard for motorcycle roadriders.

For the benefit of the helmet buyer, it should be pointed out that helmets must be certified to the Z90.1 or MS&ATA standards. Specific "approval" as such does not exist for either standard. A helmet must be certified to meet or surpass these standards. Many manufacturers indicate this certification on their product. Generally, the dealer is aware of what helmet brands are certified and, in the case of the cyclist, are approved by the state.

While the establishment of the Z90.1-1966 helmet standard was intended to provide a universally acceptable standard, it is evident that the specific application of the standard must be an important consideration. It is hoped that all auto racing associations will recognize and adopt the Z90 standard for their racing participants. And, it is hoped that the USASI will take fast steps in developing a second standard that is more appropriate for the motorcycle roadrider. Properly applied helmet standards will permit designers to make improvements as they most effectively relate to the intended use of the helmet. But, more important, the helmet wearer can have the confidence in knowing this work will result in the sparing of lives and a substantial reduction of injuries.

FASTBACK FUN continued

tion and 44 degrees overlap. The camming has a little to do with the big-cube idle sound which is hard not to detect, especially at a traffic light.

As impressed as we are with the stick 340's performance, it can't be classified as a dynamite machine. It

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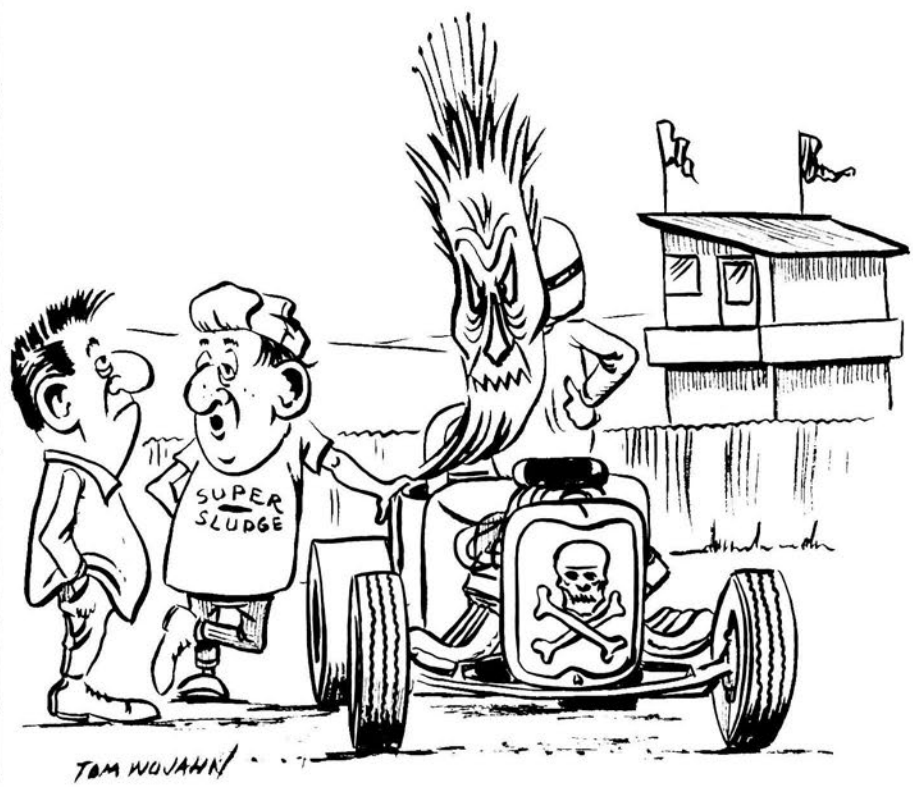

He says you wear your kind of face mask and he'll wear his kind.

has the makings of an interesting class car at the track, and certainly as an enjoyable fun buggy. But, judging by the type of equipment the street set is running around with, a stock 340 isn't going to cut it for Top Street Eliminator.

Our test cars were fitted with 3.55 Sure-Grip rear gears, which leaves a lot to be desired. Those who are not really that hip on what's happening on Woodward Ave., Van Nuys Blvd., or the Clearview Expressway should be advised that the street runners are running tall gears. The average street Chevy is packing 4.56 or 4.88 gears, and no self-respecting GTO owner would consider wandering into run-what-you-brung country without packing 4.33 cogs. So with 3.55 gears or even the optional 3.91 setup in a 340 Barracuda you may as well be a spectator. Something in the 4.10 or 4.30 range is just right for the 340 which will run right up 500 rpm without valve train hassle.

During our controlled acceleration tests we recorded many standing start 0 to 60 mph runs, between 6.8 and 7.3 seconds, and for the quarter-mile between 95 and 97 mph in 14.50 to 14.70 seconds. Considering the gears, the little guy E-series Wide Ovals and closed pipes, these times are impressive. But there's so much room for improvement. If we were out to do some real running we would think seriously about recalibrating the dual-point distributor for total to come in at 2500 rpm instead of 4000 and kicking up the total timing to approximately 35 degrees with 260 Sunoco, adding some carburetor spacers and a 785 cfm Holley with stock jetting, trading in the cast iron headers and stock mufflers for tube jobs with Thrush mufflers and trade the stock rubber in for some impressive F or G series Wide Ovals or even some street cheaters. And, of course, temporarily shelve the CAP stuff. But, that's Dreamsville!

The Formula S 340 Barracuda is a very much "in" machine for the now generation. Chrysler has found a substitute for cubic inches. It's called small-cube efficiency and it looks like it's here to stay. So the next time you pull up to a 340 Cuda at a traffic light, make sure you're right there on the lights or else you too might get your doors blown off. We never did find out if that broad was running stock!