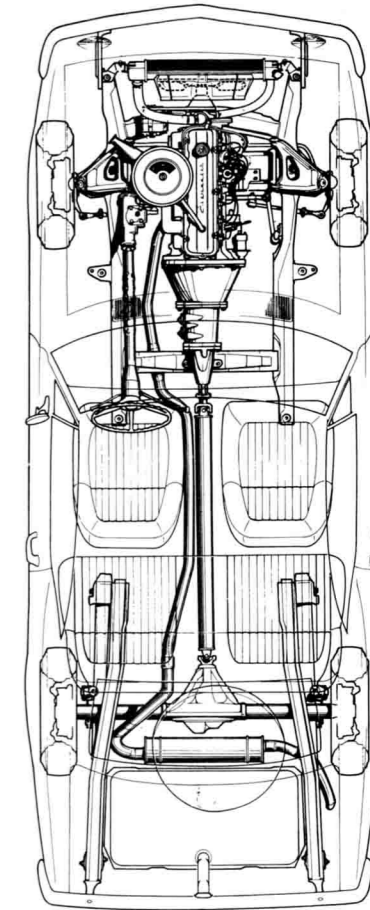
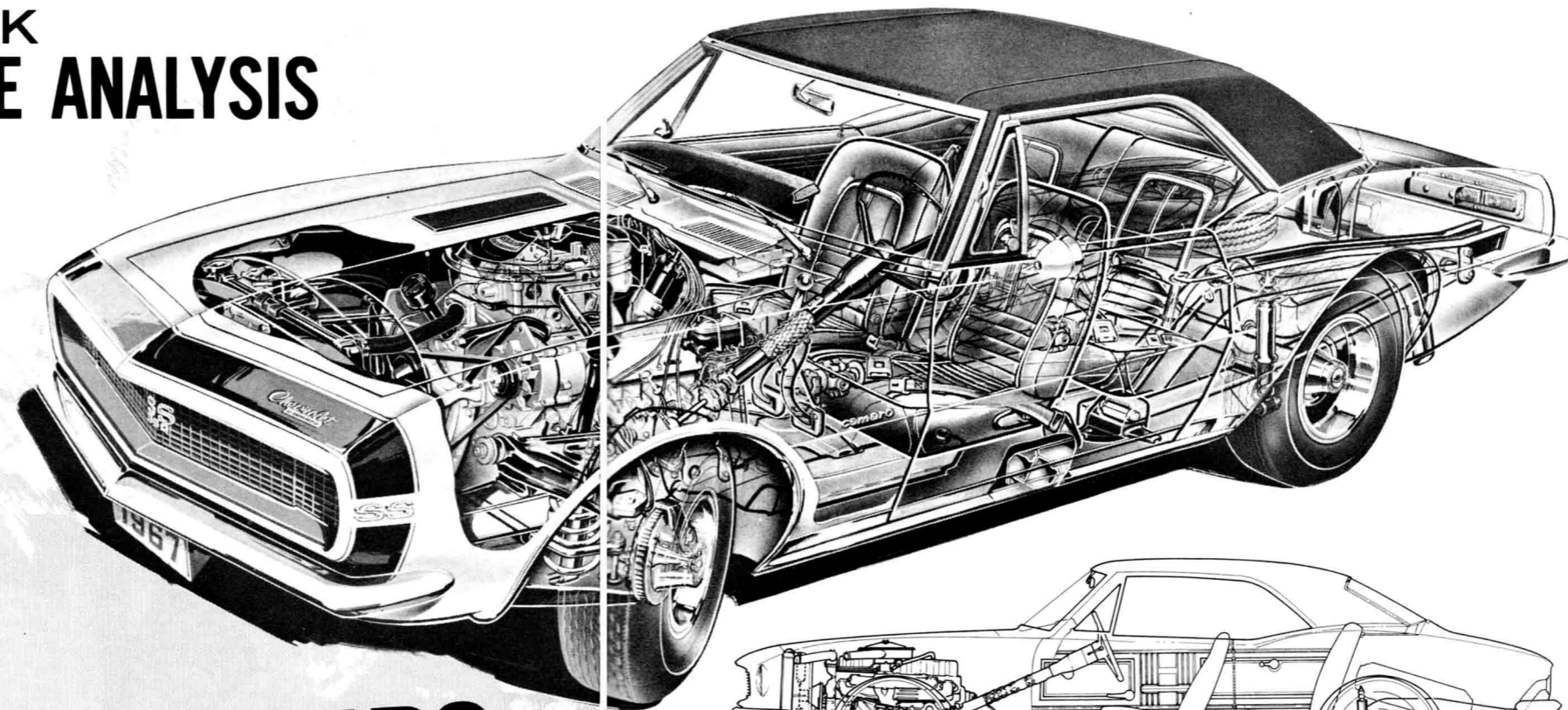


SUPER STOCK PERFORMANCE ANALYSIS

SCOOP:
Inside Info on
setting up your
Camaro for
NHRA/AHRA
Classes!



'67 CAMARO AND HOW TO MAKE IT GO!

by Fred Freel

CAMARO! Chevrolet fans have waited long and patiently for this little "pony-car," and it may prove not only to be Chevy's "answer" to Mustang but a real challenger. With the over-night success of the horse from Dearborn, Camaro has its work all picked out. We doubt if anyone expects it to outsell the Mustang, but Chevy sure plans to dent Ford's sales record. Let's take a closer look at this little bomb, and see what Chevrolet has in store for you performance buyers.

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Front suspension looks very similar to that of the Chevelle, while rear springs go the single leaf route as used on the Chevy II. Special

frame rails are welded to the underbody at the rear to give strong support to the spring mounting points. Rear axle "wrap" is controlled by the two leaf springs and slightly canted shock absorbers.

The engine department is where the Camaro really comes on strong. Base mill is the 230-inch, 140 hp six, with an optional six of 250 inches and 155 hp. That takes care of the economy buyers, so anything above this be prepared to brace yourself!

The lowly 210 hp 327 will probably be the most popular V8 for strict street use, but don't knock this little stormer. We feel that this engine may be *under-rated* by quite a few horses (compared to other Detroit engines). It puts out a whopping 320 ft. lbs. of torque at a mere

2400 rpm. Compared to Mustang's 200 hp engine (282 @ 2400) it should really turn on in the stop light *grand prix*.

Next up is the 275 hp version of the 327. Essentially the same as last year's engine used throughout the Chevy line, the compression ratio has been dropped from 10.5 to 10.0 to one. This was caused by a slight modification of the cylinder heads. However, the engine is still rated at 4800 revs with a torque peak of 355 @ 3200. Supposedly, this engine will run in direct competition with the 271 hp Mustang. Good luck fellas!

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The pistons are cast aluminum with flat heads and valve reliefs. Upper compression rings are cast alloy iron with a moly inlay, while the second rings are cast iron with chrome plating. Oil rings are the same as the 327; steel rails with chrome faces and stainless steel expanders. Connecting rods have a heavier cross-section and are .004-in. longer. This slightly longer rod is, presumably, to decrease the deck clearance. Down on the crank, all bearings are Morraine aluminum, while the 327 uses a sintered copper/

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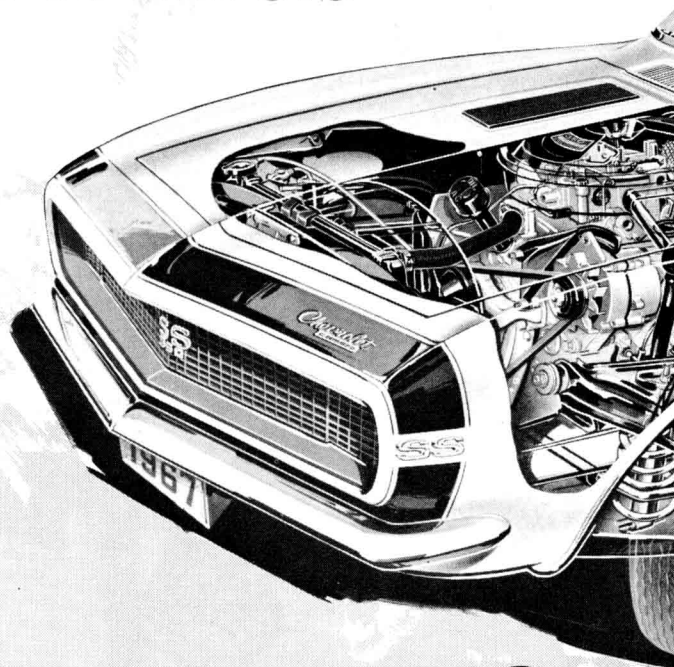
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The six cylinder engines are connected to their manual transmissions by a 9.12-in. diaphragm type clutch exerting 1800-lbs. of pressure. The 327's use a special 10.4-in. bent-finger diaphragm type with 2300-lbs. pressure. The 350 goes to a full eleven incher with 2600-lbs. pressure. One thing odd about this 350 clutch; its specs are very close to that of the 396 Chevelle. Could that mean something?

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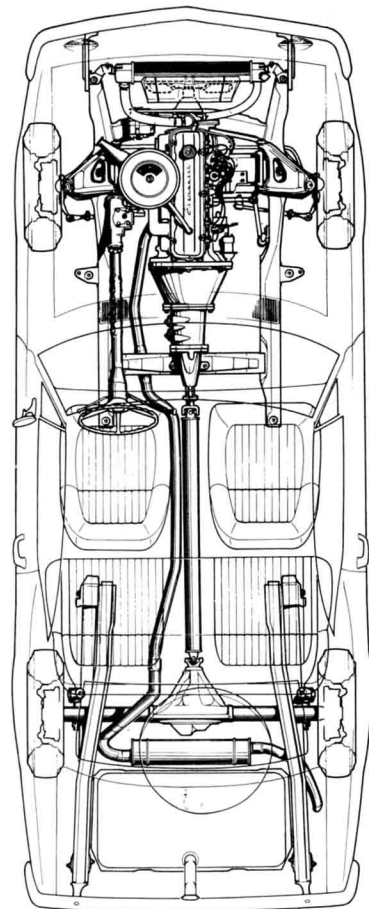
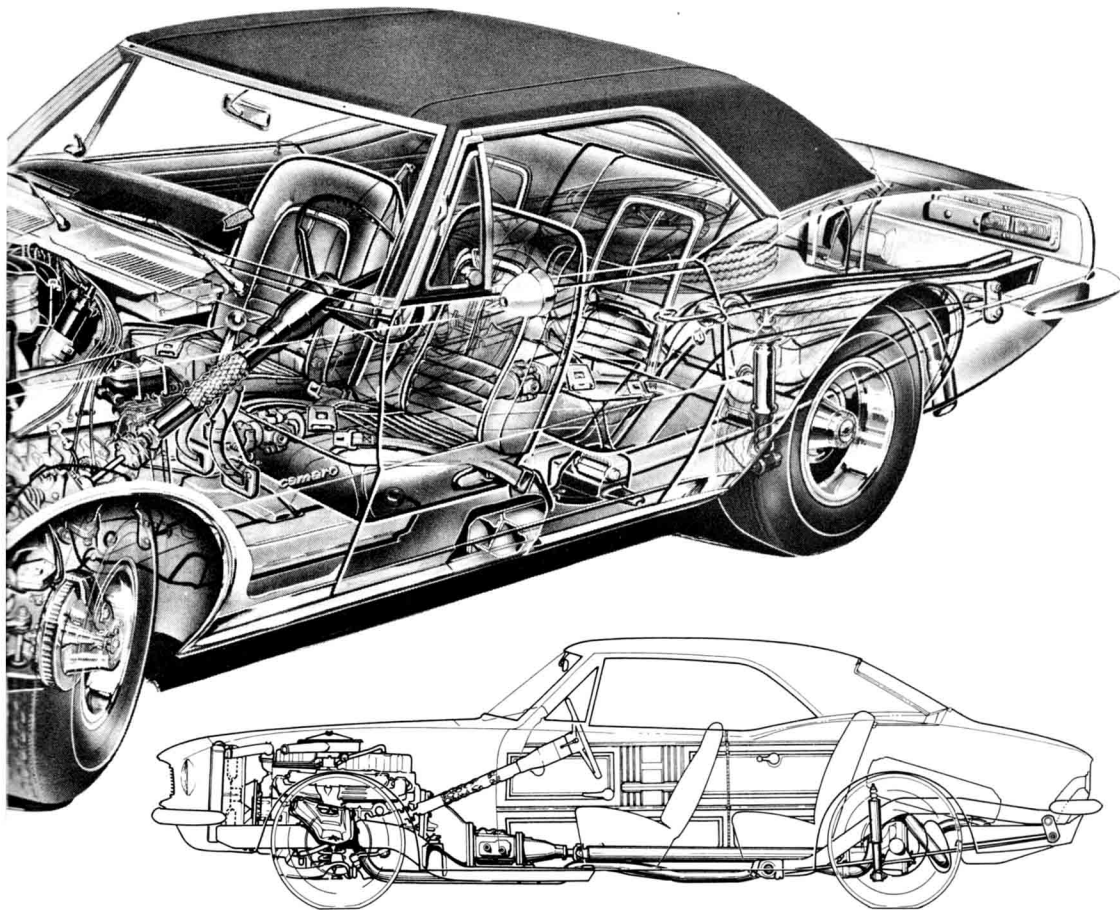
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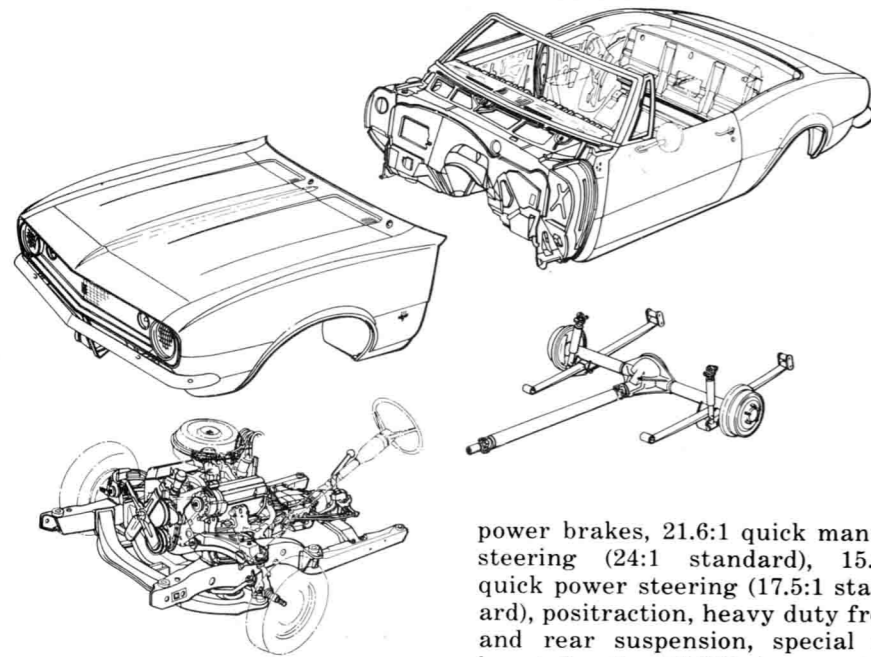
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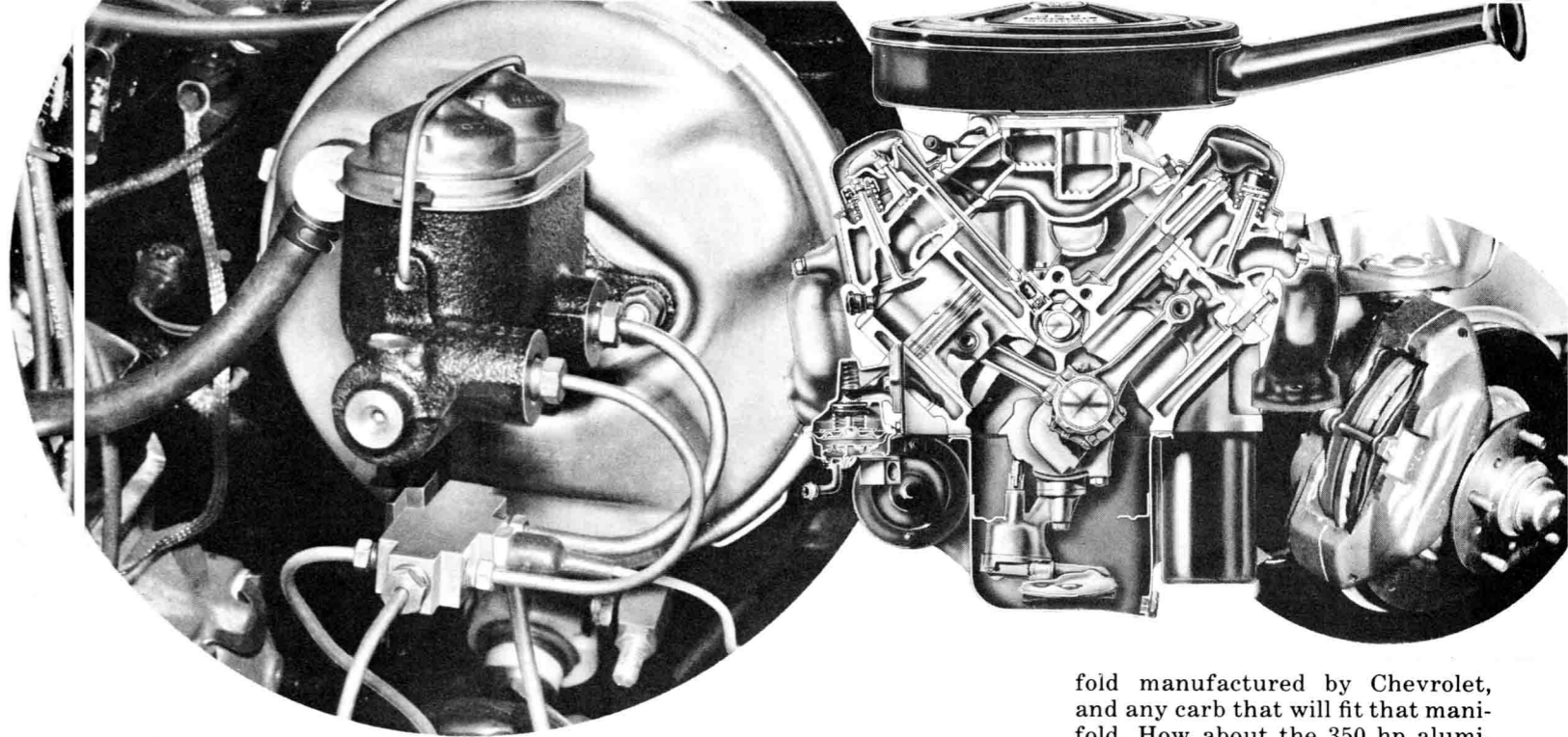
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category for cars with a wheelbase of less than 112.9-in. In this class AHRA classifies by engine displacement regardless of car weight. Camaro is limited to a 4-bbl. carb, so it will compete in either Formula 5 with a solid lifter cam or Formula 6 with a hydraulic. The displacement break for the D/SX class is 340 to 359, so the 350 will fall right in the middle of the class.

To see just how open the D/SX class is let's start with the engine. Although you must use a stock 350 engine as a base, you can bore the cylinders .060-in. With a .050-in. over-bore you will arrive at a total of 358 cu. in. which is just under the wire for the D/SX 359 maximum. But that's not all. While you're in there boring the cylinders, you can install any replacement piston with *any compression ratio*. This is all the engine needs to go in the first place.

You've got to make the engine breathe, so AHRA allows any flat tappet cam (in Formula 5). Now here is where the goodies come in. Although you can't port or polish the heads, you *can* use any cylinder head produced for the 350 *design*. This brings to mind the larger port 350-hp heads used on the Corvette. Now, the 2.02-in. intake valves are pretty large in this head, but AHRA allows even larger ones if you can get them in there.

You may think; "all this is fine and dandy, but what about carburetion?" Well, it's true that the stock Quadrajet is rather economy minded, but AHRA has an answer for that, too. You may use any mani-

fold manufactured by Chevrolet, and any carb that will fit that manifold. How about the 350 hp aluminum hi-riser? You can fit one of those fantastic Holley 4-bbls. to the 350, and your breathing problems are over. You may also modify the carb in any way, so how about boring out the primary venturii? With a good set of exhaust headers, the possibilities are unlimited here.

To subtract a little weight during racing, it's allowable to completely remove the mufflers and tail pipes. Any type of header can be used as long as the collector does not exceed five inches in diameter.

Hood scoops are also allowed, so why not make those hood grills on the 350 functional? Need bite? You can run any size slick that will fit in an unaltered wheel well. After looking at those wheel wells, we know there will be some huge tires on this car. Suspension-wise, the rules are comparable to NHRA's. But for you automatic transmission fans, you can use *any* automobile transmission. That's right, you can install a beefed hydro and really wail.

Now before you guys go off the deep end for the 350, check out some of the rumors coming out of Detroit. As far as we can tell, January 1, will mark the announcement of a 396 Camaro. Information is still pretty sketchy, but the car *is* coming and should prove to be a real screamer on the strips. So far, only the 325-hp version is planned, but, if the 375-hp Chevelle engine is installed, watch out. An educated guess would put this in NHRA's C/S or C/SS class, while AHRA would go the B/SX route (A/SX bored .060 in. over). Now let's go racing! ■

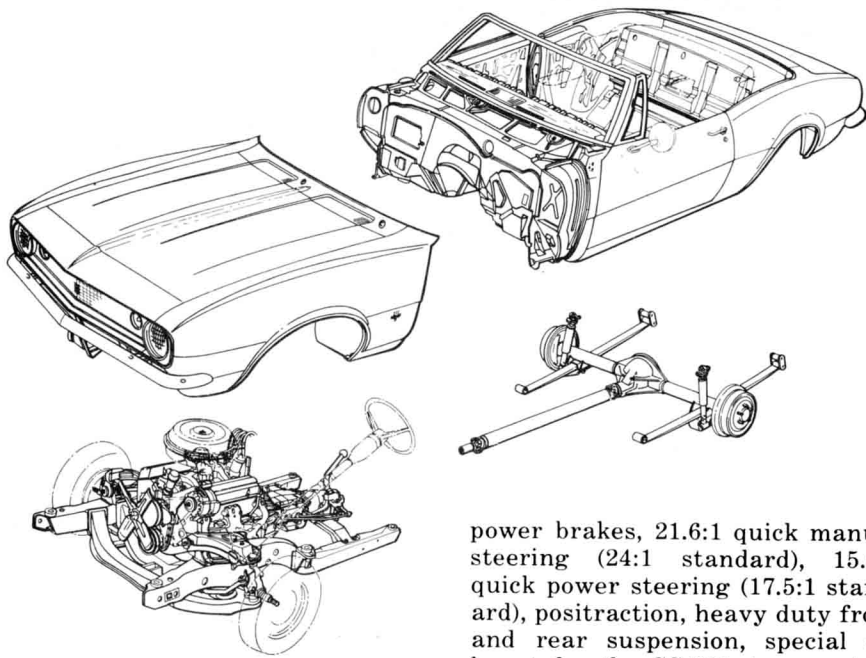
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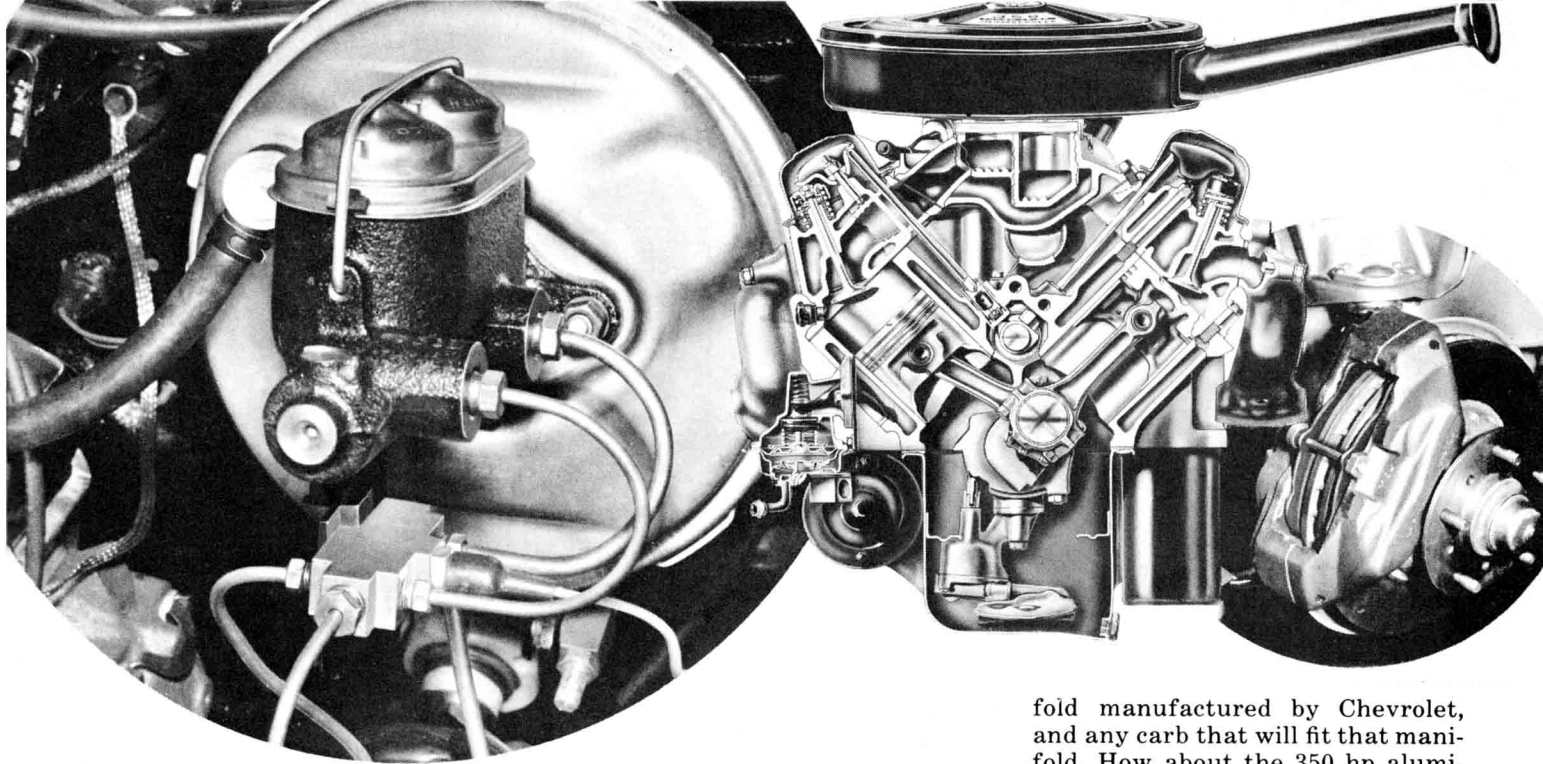
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The American Hot Rod Association is not as old as NHRA, but their classification of stock cars more than makes up for this. If you want to go racing, and mean business, they have a class for you. There are too many classes to cover in this story, so we'll tackle the most popular stock class. Your best bet would be to pick up a copy of both NHRA and AHRA rule books. All of your questions are answered therein, and it may help you decide in which class you would like to run.

If we are to set up our 350 for AHRA racing, it will fall into one of three categories; Stock, Stock Optional, or Stock Extra. Since the Camaro has only 108-in. for wheelbase, it will fall in the Stock Extra

category for cars with a wheelbase of less than 112.9-in. In this class AHRA classifies by engine displacement regardless of car weight. Camaro is limited to a 4-bbl. carb, so it will compete in either Formula 5 with a solid lifter cam or Formula 6 with a hydraulic. The displacement break for the D/SX class is 340 to 359, so the 350 will fall right in the middle of the class.

To see just how open the D/SX class is let's start with the engine. Although you must use a stock 350 engine as a base, you can bore the cylinders .060-in. With a .050-in. over-bore you will arrive at a total of 358 cu. in. which is just under the wire for the D/SX 359 maximum. But that's not all. While you're in there boring the cylinders, you can install any replacement piston with *any compression ratio*. This is all the engine needs to go in the first place.

You've got to make the engine breathe, so AHRA allows any flat tappet cam (in Formula 5). Now here is where the goodies come in. Although you can't port or polish the heads, you *can* use any cylinder head produced for the 350 *design*. This brings to mind the larger port 350-hp heads used on the Corvette. Now, the 2.02-in. intake valves are pretty large in this head, but AHRA allows even larger ones if you can get them in there.

You may think; "all this is fine and dandy, but what about carburetion?" Well, it's true that the stock Quadrajets are rather economy minded, but AHRA has an answer for that, too. You may use any mani-

fold manufactured by Chevrolet, and any carb that will fit that manifold. How about the 350 hp aluminum hi-riser? You can fit one of those fantastic Holley 4-bbls. to the 350, and your breathing problems are over. You may also modify the carb in any way, so how about boring out the primary venturii? With a good set of exhaust headers, the possibilities are unlimited here.

To subtract a little weight during racing, it's allowable to completely remove the mufflers and tail pipes. Any type of header can be used as long as the collector does not exceed five inches in diameter.

Hood scoops are also allowed, so why not make those hood grills on the 350 functional? Need bite? You can run any size slick that will fit in an unaltered wheel well. After looking at those wheel wells, we know there will be some huge tires on this car. Suspension-wise, the rules are comparable to NHRA's. But for you automatic transmission fans, you can use *any* automobile transmission. That's right, you can install a beefed hydro and really wail.

Now before you guys go off the deep end for the 350, check out some of the rumors coming out of Detroit. As far as we can tell, January 1, will mark the announcement of a 396 Camaro. Information is still pretty sketchy, but the car *is* coming and should prove to be a real screamer on the strips. So far, only the 325-hp version is planned, but, if the 375-hp Chevelle engine is installed, watch out. An educated guess would put this in NHRA's C/S or C/SS class, while AHRA would go the B/SX route (A/SX bored .060 in. over). Now let's go racing! ■