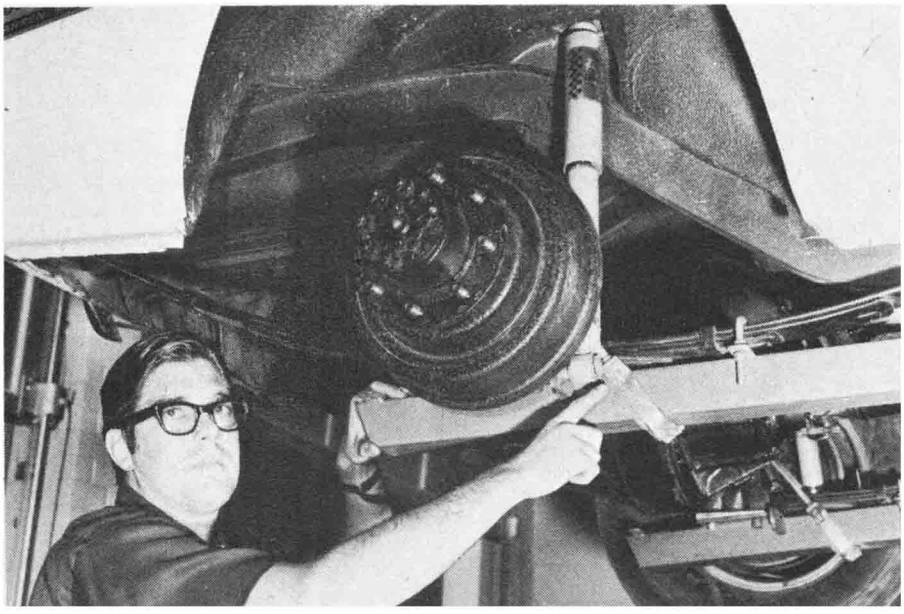
SLICK AND SLIPPERY

Former hydroplaner and circle track racer gets back onto the strip scene with a super-clean Camaro D / Gasser

BY ALEX WALORDY

The "Equalizer" has no equal in the traction-department. The '67 Hugger is a D/G champ.



Truck rear features built-in safety hubs with Timken roller bearings. Brakes are light.

ONE HUNDRED and ten miles an hour doesn't sound like much of a drag racing speed until you find out that Jim Gilbert used to do that in a hydroplane, slowing down to a mere 90 for the corners. Later on, Jim switched to circle-track racing, but decided that fender straightening after each evening's bash took too much of his time. He then went back to where he originally started—drag racing.

Jim wanted a D/Gasser, and at first, thought in terms of a '57. But he then switched to a '67 Camaro because of the slippery shape. Now we want you to know that Jim Gilgert goes First Cabin on anything that he does. However, the only way that he can afford it is by doing all his own work and by shaving a little here and there on purchase prices. In other words, it's the end result that is First Cabin. The beginning, on the other hand, was a bit on the modest side—a standard Camaro bought from an insurance company for the magnificent sum of $450.00 which was brought home to a little one-car garage. Jim borrowed some Porto-Power jacks and started straightening. After shaping out the firewall, Jim got the idea of hiding all the wrinkles with some neat leather-grained aluminum paneling.

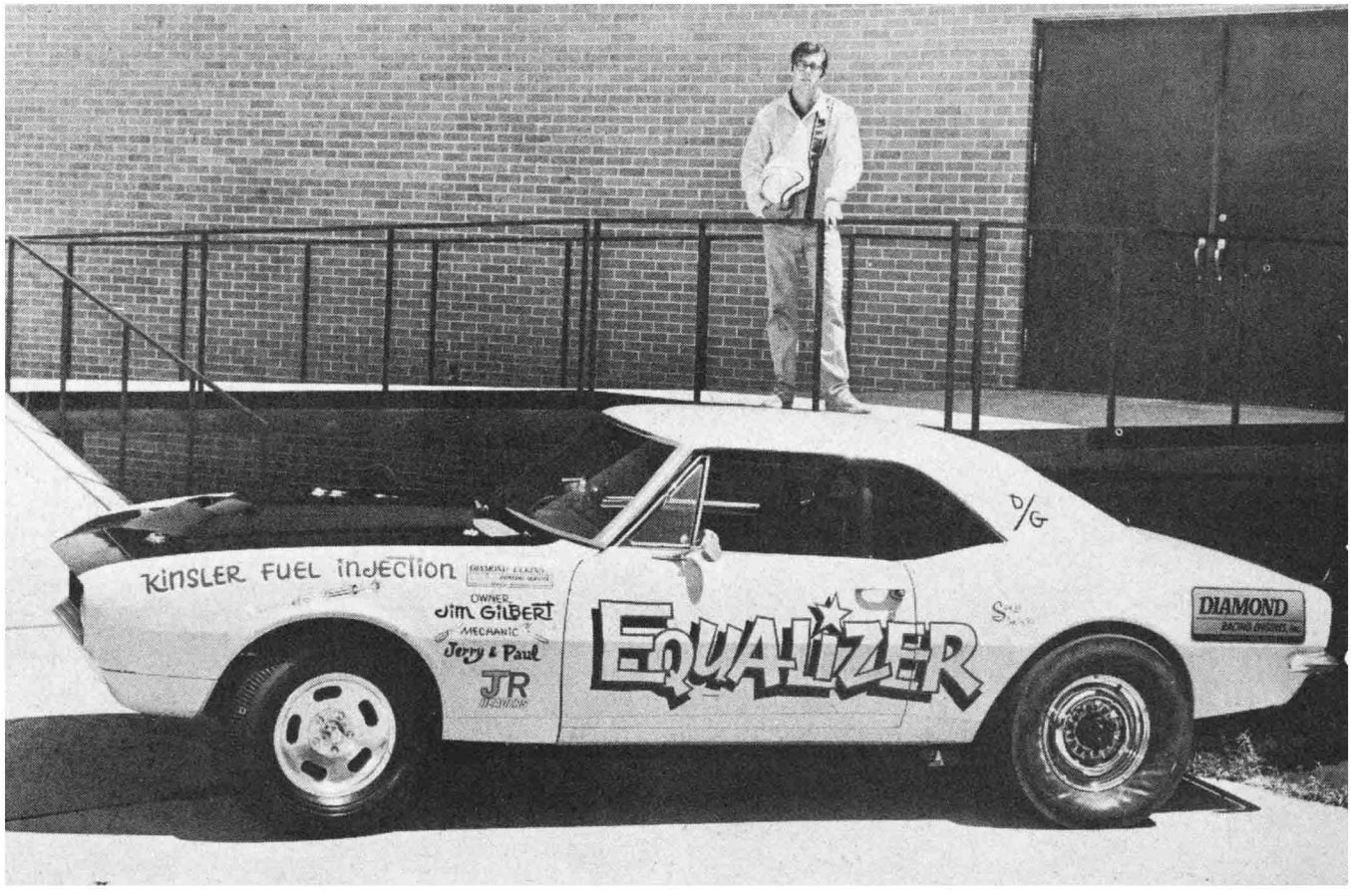
The front end was missing but a '68 replacement was quickly located. Unfortunately, the later-style front turned out to be a hundred pounds heavier than the original one, so the search started all over again—this time for a '67. Jim finally located one—part of a burn-out. The grille is still the standard '67, but the two air holes at the front are blocked off with aluminum sheet and so is the air entry into the cowl. In other words,

The 15X7 wheels had to be home made. Truck center is pressed into Corvette outer rim.

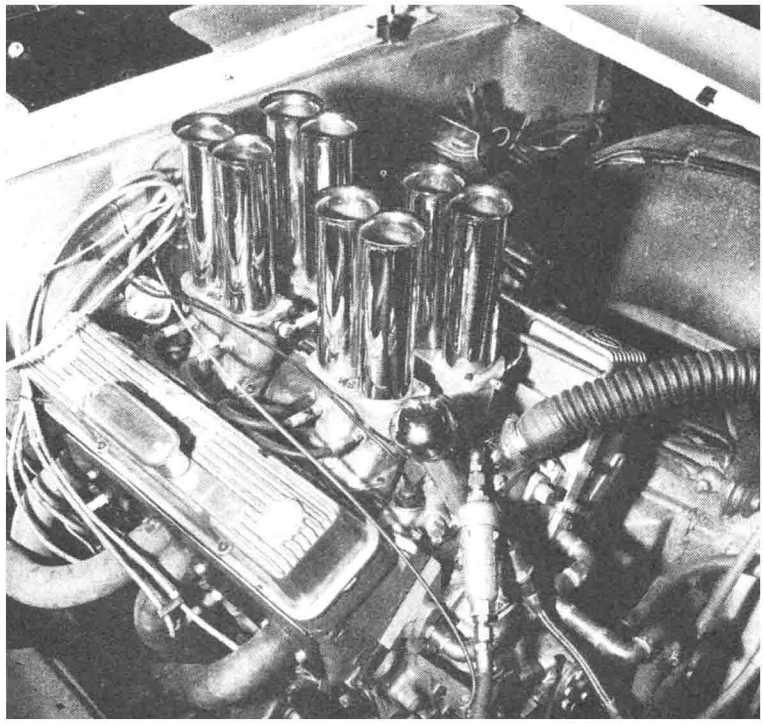
Jim didn't want the engine compartment to trap an air pocket. Unfortunately, he had to stop short of a belly pan because of class rules. Gilbert's first plan was to color his Camaro copper and call it "The Last Penny," but then Mars Collision in Detroit unlimbered a couple of gallons of bright '70 Boss Mustang yellow which eventually earned a show trophy at the Detroit Autorama.

Working on the theory that you can always add weight after the car is completed, Gilbert didn't miss a trick in shaving ounces and pounds here and there. For instance, a lot of bolts are eliminated, the entire undercarriage is sand-blasted and big weight-penalty items such as the heater and wiper motor are now a thing of the past. Even the glove box and some of the inside detailing have been replaced with leather-grained aluminum paneling—the same kind that was used on the firewall.

The result of all this tender, loving care is a Camaro that weighs a mere 2720 pounds. Since 3106 pounds are the break-even for the class, a few big-ticket items were allocated to the trunk area, such as a 147-pound battery and a rear axle that weighs nearly



Owner Jim Gilbert completed his pride and joy in his one-car garage. Jim has raced circle tracks and hydroplanes and is always a winner.



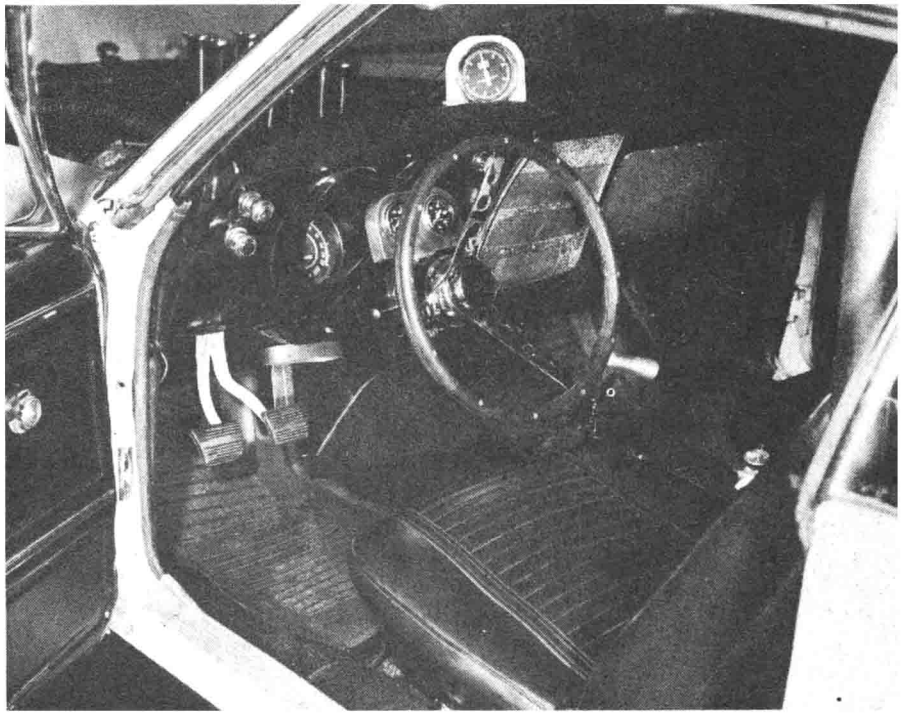
Eight-inch stacks will yield to six-inchers for 8200 rpm trips.

Jim, don't you think you had better take off the cap?

150 pounds more than the stock Camaro one. Add to this 100 pounds of removable ballast which mounts on two threaded one-inch posts. This weight can be split in any proportion between right and left.

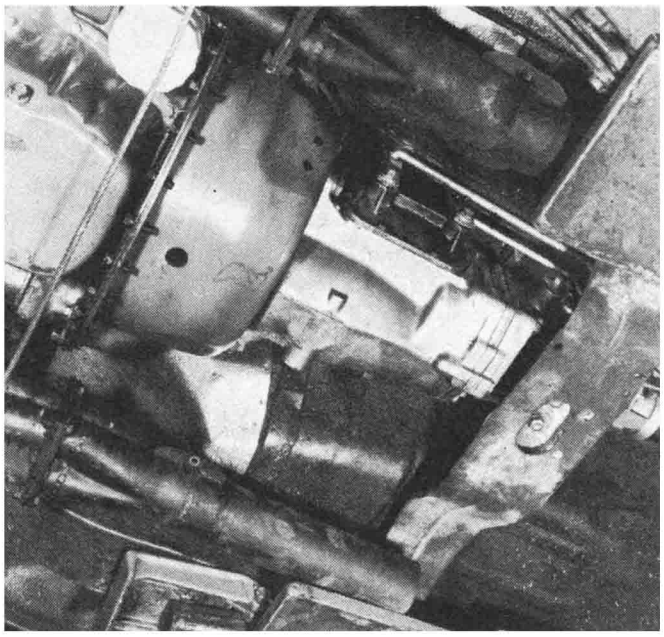
We first spotted Gilbert's Camaro in action at the Windsor Dragway. Invariably, the front wheels cleared the ground by six inches or better and the car launched arrow straight. Weight distribution and engine power alone didn't do it. This kind of performance also calls for ample front end changes. Everything was done to loosen the front suspension and make it ride higher. For instance, the front shocks are not only up-locks but also come from a Ford rather than a Chevy and offer an extra inch of maximum travel in rebound. The standard sway bar is gone, and all of the front end bushings are thoroughly loosened up. You would be surprised at how much extra spring rate and drag can be taken out of the suspension pivots. Narrow 3½-inch Fenton front wheels cut down on the rolling resistance of the front tires and even a little detail like repacking the front wheel bearings with light grease wasn't overlooked. Added to this is a set of three-inch-wide Bendix brakes without self-adjusters.

Poking out from the mat-black hood scoop are a set of air stacks, part of a rather unique fuel system made by Jim Kinsler of Roseville, Michigan. Kinsler, just like Gilbert, is not only a racer but a doer. He proceeded to track down some of the most common fuel injection ailments and then found cures for them. Now, the only

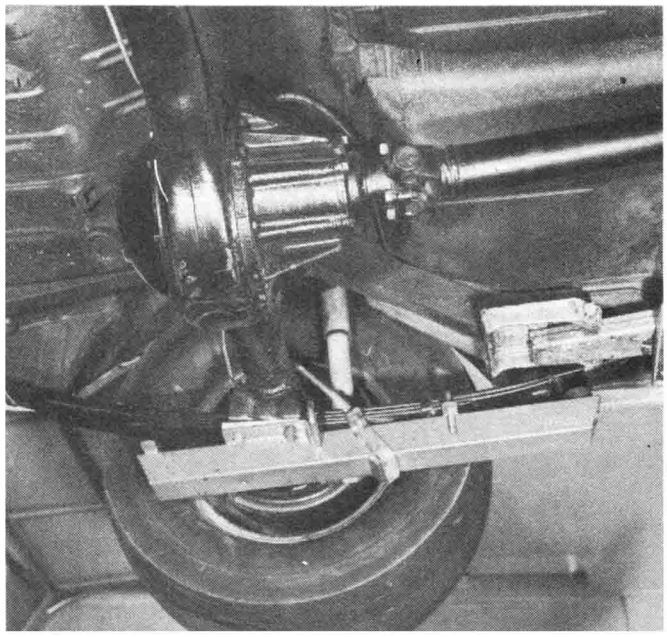


Liberal use of aluminum brought weight down to 2720. Heavy trunk-mounted battery aids traction.

Soft Goodyears or M&H 11X15's work the best.



Lakewood shield houses Hays plate and disc. Mopar trans is beefy.



Full torque is harnessed by always having full T-bar/spring contact.

thing he can't find is enough hours in the day to keep up with the business that pulls up to his front door.

Instead of trying to create a complete manifold from scratch, Kinsler made a set of four castings that are bolted and epoxied to a '57 Corvette "bed plate." (This was the base to which the original '57-and-up Corvette fuel-injection bolted.) The smooth-flowing dual inlets didn't just happen. They were carefully flowed on a test bench and have a hefty throttle bore size. Four individual throttle shafts are used, one in each of the injector assemblies, and a series of special connectors make them operate in unison. The advantage over any of the popular standard fuel-injection systems is that the throttle shafts cannot get into a bind no matter how the manifold is tightened. Once set up, the throttle valves never have to be recentered or readjusted. Also, a centrally-located linkage forces all of the throttles to work in unison.

Engine rpm has been going up steadily—now it is 8200 through the eyes on a normal run, and so Gilbert is going to switch from eight-inch stacks to six-inch ones for better ram tuning. The total length from the top of the stack to the intake valve is, of course, considerably longer and takes in the Kinsler manifold as well as the port. One neat little detail is that the stacks pilot directly into the manifold casting for a snug fit instead of just resting on it—hence, an air-tight arrangement.

Much weight was saved by replacing the Camaro gas tank and fuel line with a 2½-gallon Eelco tank. It is mounted high enough to provide a gravity feed directly to the Hilborn pump, which is one way of eliminating air leaks. Cleanliness is the word when it comes to an injected fuel system and Gilbert not only filters all of the gas going into the tank but has also added a Kinsler ribbon-type fuel filter between the pump and the injectors. Most people feel that aluminum is the hot setup since it saves weight, but Kinsler uses a heat-treated steel barrel valve and an even harder valve body for tight control of sizes and flow. It's no wonder the *Equalizer* runs clean and sounds sharp all through the rpm range.

With this much of a head start on good breathing, Gilbert follows through by adding a set of Junior headers with a range of different-size collector and stack lengths. To this you can add a pair of Diamond-Elkins cylinder heads that are ported and polished to the n'th degree. The valve train includes a Crane 308 roller cam, a Rev Kit and titanium valve spring retainers.

Delving deeper into the engine you

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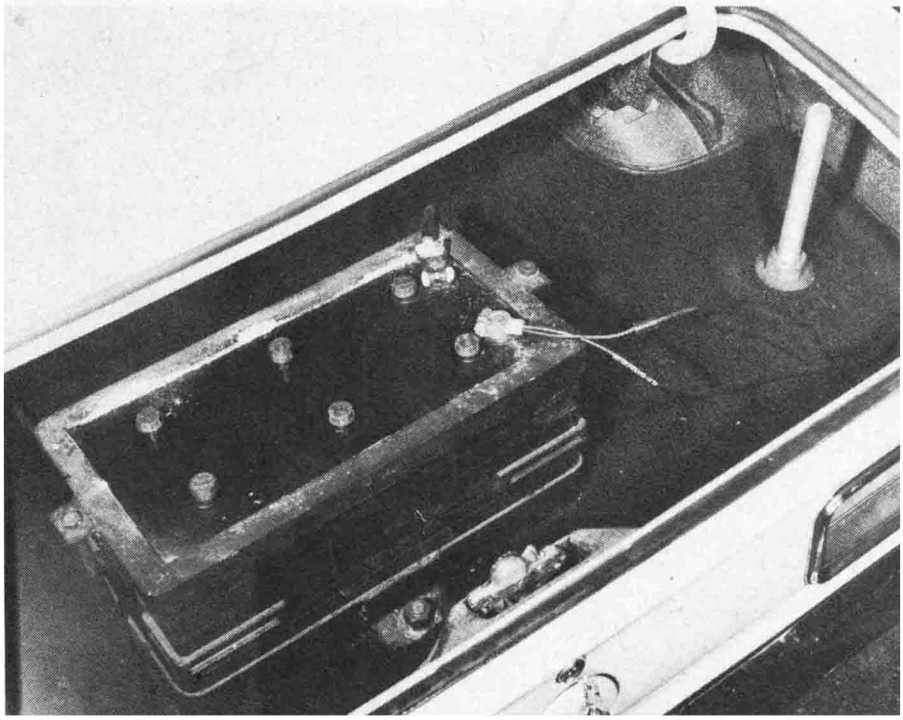

In addition to this halacious battery, Gil also uses two tie-down studs for extra ballast.

mirror—a major safety advance. When I finally tested a car with this mirror, it promptly fell off and gashed a piece out of my leg.

I'll probably go to the '72 car introductions, if I'm invited after writing this. But what I'd like to hear about when I go is what the company has done in the past year—not to build newer cars—but to build better ones. That will be the biggest automotive news in years. And it will *really be new.*

SLIPPERY

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will find a complete blueprinting job by Jim Cavalaro of Diamond Racing Engines in Detroit. In addition to line-boring and decking, the block is also deburred and painted both inside and out. A stock truck crank is ground .010 under on the rods and mains. Chevy 302 rods straight out of a Z-28 are polished and rounded at all corners. To cap it off, you will find some Develco rod bolts and copper plating rather than bushings at the pin ends of the rods. The idea is to keep maximum rod wall thickness instead of boring out to make room for the bushing. Lightweight Venolia pistons with Teflon buttons and a Z28 oil pan and pump complete the short block.

The Lakewood bell housing encloses a 40-pound flywheel drilled to accept either a 10½ or an 11-inch clutch. After weathering a round of clutch problems, Gilbert now runs a Hayes pressure plate and a solid disc. However, the engagements are a bit harsh and he is planning to switch back to a Hayes spring hub disc.

The Camaro alternates between a rock crusher M22 transmission and a Mopar box. The Mopar is a big, heavy-duty unit which, together with an adapter, weighs 50 pounds more than the M22. Unfortunately, it had lost fourth at the time we shot our pictures and Gilbert was back to running the Chevy, which is standing up quite well. By way of telling you how closely the weight is trimmed on this Camaro, the extra 50 pounds of the Mopar box had to be made up by reinstalling the rear seat. A large removable cover in the floor pan speeds up the transmission changes so that they can be made between rounds if need be. Since Gilbert is a good-sized guy who can throw shifts as hard as anyone, he doesn't need much leverage and opted for a Corvette shift tower, rather than one from a Camaro, so as to gain a shorter throw.

Even the Chevy 12-bolt axle didn't stand up too well to the new-found engine power. After a siege of broken spider gears and ring tears, a switch was made to a ¾-ton Chevy truck rear of '63 vintage. This rear is a full 150 pounds heavier than Chevy's 12-bolt job but is considered unbreakable. One bit of advice Jim gave us was to get the ¾-ton rear from a pick-up rather than from a van to get the benefit of lighter, smaller brakes. Dimensions taken from the previous axle location were used as a guide in aligning the new one. You could probably manufacture a new set of spring pads but Gilbert simply salvaged some from a '68 Camaro, welded them in and added tie-down straps that go around the top of the housing and also brace the pad.

Midland Tool milled out a set of steel wedges from flat stock. These are inserted between the Lakewood traction bars and the spring pads to nose up the bumpers at the end of the bars. On the right side, contact occurs right from the start and at the left there is only an eighth-inch wind-up space. Now he gets immediate preload on take-off and yet there isn't enough difference between the two bars to pull the car sideways during shifts. Multi-leaf Camaro springs replace the single leaf ones, but the Mr. Gasket 50-50 shocks are mounted in the stock position, in front of the axle, rather than staggered as in later Camaros.

The ¾-ton rear has a different bolt pattern than stock Chevy and Gilbert wound up having to make his own wheels. Truck centers were cut down on a brake-drum lathe to form a press fit in 7-inch Corvette rims. After aligning the centers to the right offset inside the rim, the wheels are welded on both sides. A brake drum lathe, incidentally, proved handy for machining and aligning the wheels. Add to this a set of 11.00/15 M&H's with soft compound or similar-sized Goodyears. Either way, Gilbert smokes them to a quick win.

CLASS-IFIED OLDS

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and then reamed to size. Spaces between the coils on the Bronzewell form a series of oil pockets that contribute to sealing and lubrication. In fact, they work so well in that respect that Brady omits oil seals on the exhause side. Faster shifts begin with a Hurst stick and some Hurst steel bushings to replace the nylon ones. The rest of the linkage is made up of heavy-duty Oldsmobile pieces. Grinding longer ramps into the shift detents makes for smoother and faster shifts. Another step in this same direction was to remove the blocker rings from all gears except first. The transmission, however, is not slick-shifted and all the teeth in the sliding sleeves are retained for strength.

The rear axle is a standard Olds unit with 5.0-to-1 gears. A Canadian Olds, Chevy-type-rear that will fit allows a wider gear selection such as a 5.13 or a 5.38 but this has not been necessary to date. That intriguing Olds aluminum cover on the rear axle proved to have more than just a dress-up value—it holds an extra pound of grease and helps the rear run cooler. Rear suspension work includes a pair of Air Lift bags and separate lines extend from each bag to a convenient valve and filler point at the side of the car. The pressure changes are handy in getting the car back to the straight and narrow, when it shows signs of pulling to either side. Both Molnar

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