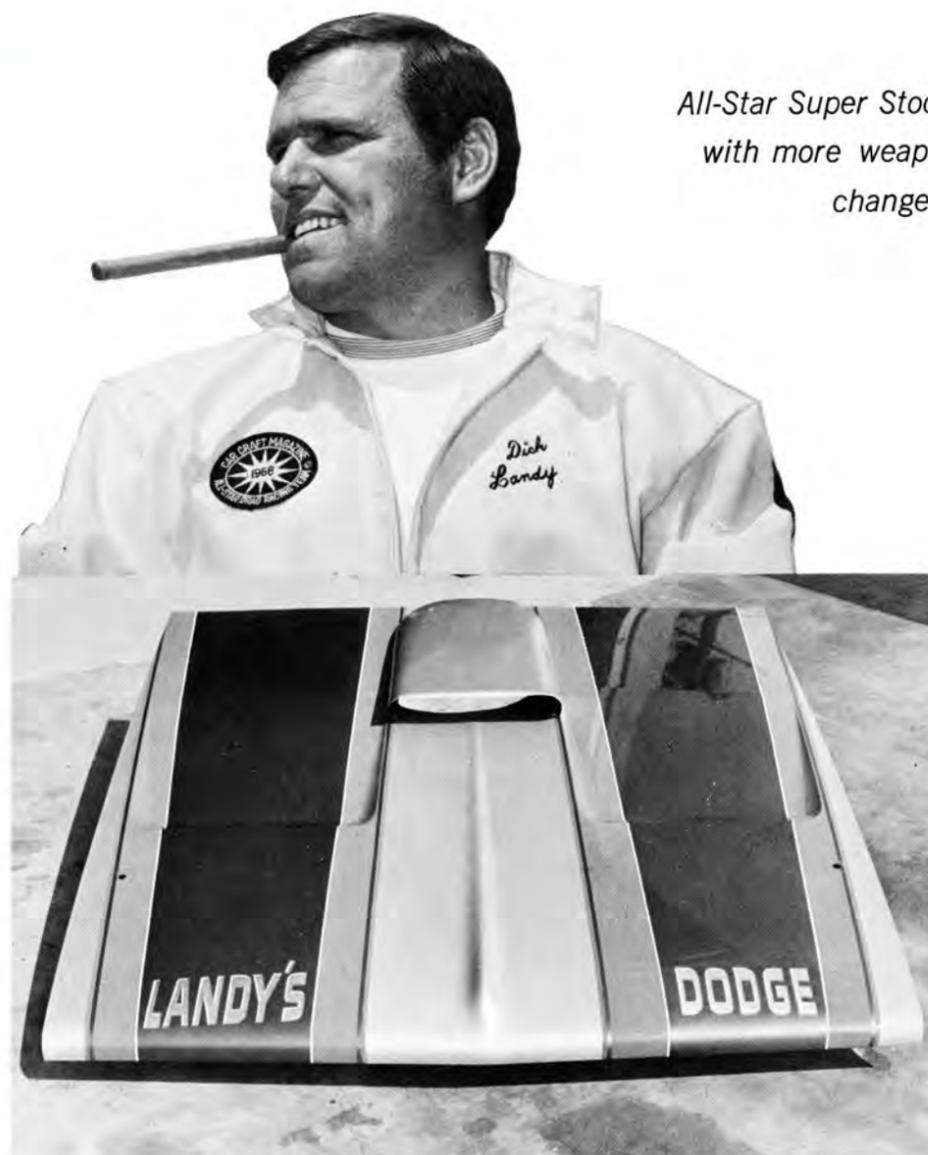


PROJECT: FLYIN' WEDGE

PART TWO



All-Star Super Stock engine man Dick Landy is back with more weaponry for the Wedge. With only five changes, watch him turn a Super Stocker into a Street Stormer!

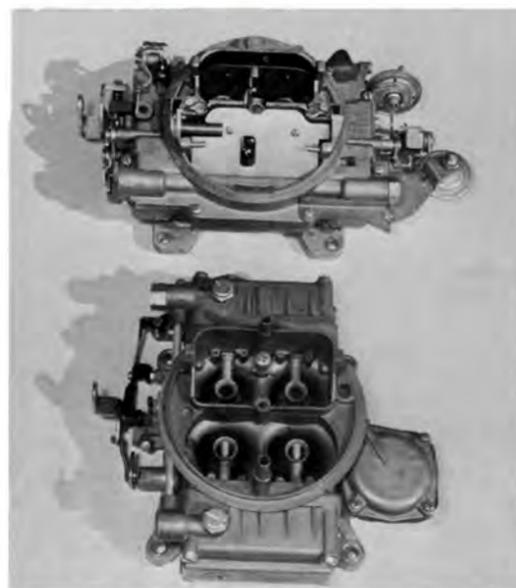
BY TERRY COOK □ Time now to tune in again on Dick Landy's 440 doings, our accelerated course in tips for MoPar Wedge owners. Last month, as you may recall, we left Dick with an NHRA legal SS/F version of his '69 440 Charger. In this episode, we'll talk about the suspension modifications which give the big Dodge a grip on things. Also, we're going to deviate from the NHRA rules and switch the engine over to a Modified Production variety with plenty of performance—sort of a streetable stormer. With only five basic changes, the Charger can drop more than half a second in elapsed time and tack about five miles per hour on to the trap speed.

Getting right to it, the front suspension was set at the designated height (with the driver sitting in the seat, for proper weight distribution) while the front end alignment was accomplished. The alignment dimensions are all stock with the exception of adjusting in the maximum possible caster to assure straight runs. The rubber bottoming bumper grommets were removed and a 7/16 x 3-inch bolt was put into each lower A-arm and adjusted to the point at which the grommets would hit the pad on the frame during a front end bottoming situation. In this manner, the oil pan cannot hit the ground and be damaged as a result. Slightly springier, six-cylinder torsion bars replaced the eight-cylinder bars which come stock in the Charger. A "loose" set of standard shocks are used in conjunction with a pair of four-inch wide, fifteen-inch tall Cragar steel "Super Stock" wheels. A pair of 7.75 x 15 Goodyears, inflated to 50 p.s.i. for minimum rolling resistance, are employed. The front "K" member was notched two inches to facilitate oil pan removal.

Back in the traction department a big pair of 10.50 x 15 Goodyears handle the power, and are mounted on a pair of six-inch Cragars. The front mounts for the rear springs were reworked to provide additional mounting points so the suspension system is adjustable for varying strip conditions. The rear shocks are Chrysler (#258699) heavy-duty equipment, and the spring pads on the rear housing were welded for added strength. The pinion snubber, which has four to five inches of clearance between the top of the snubber pad and the floorboard in stock form, was also altered. A spacer was welded

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One good way to pare about fifty ugly pounds off your Charger is to slip on a fiberglass hood like this one—up front where it counts. Scoop also feeds cold air to carb for power.



Chrysler's AVS carburetor, top, was replaced with a 3116 Holley jug, which features high performance-oriented metering system, rather than for emissions.



Another key change was replacing stock Chrysler exhaust valves with larger 1.894-inch valves from a 1963-64 427 Stage III high performance MoPar engine (#2402322).

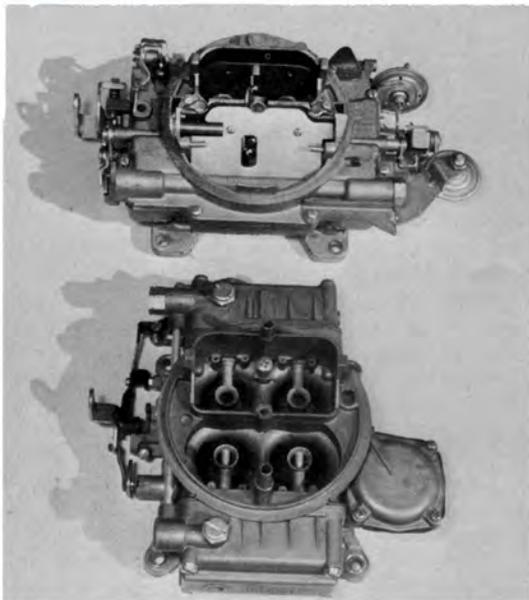


Major substitution in Stage Two of our project was ousting .022-over stock compression 10:1 pistons in favor of pop-up 12 1/2:1 ForgedTrues with .050 overbore. Result is 455 inches.

Stock 440 rods get the "deep six," and beefy Hemi rods that have been machined to wedge specifications, on right, have been installed. Hefty Chrysler rod part reference #2531589.

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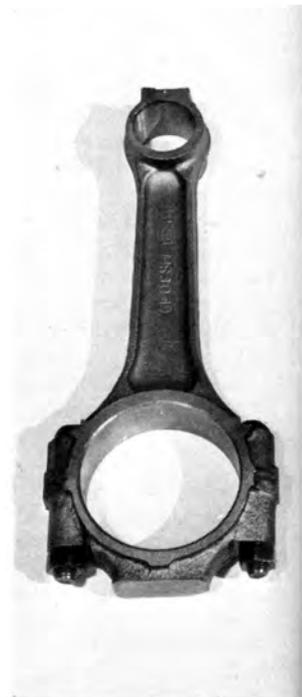
PART TWO



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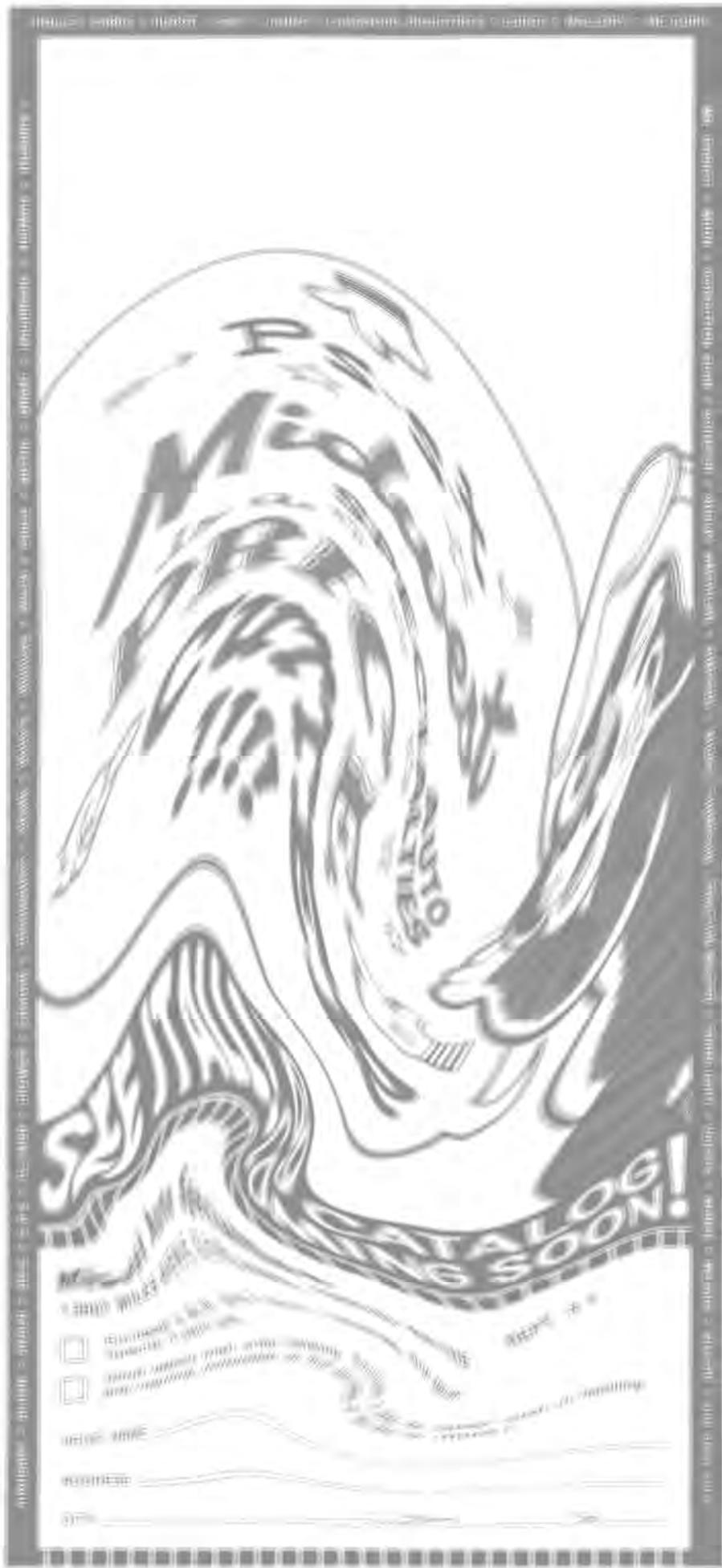
FLYIN' WEDGE

(continued from page 35)

in and the pad was raised to a point where only one inch of clearance remained between the floorboard and the top of the pad.

And now for those five modifications that really provide a punch in performance, remembering that we are no longer limited by the strict NHRA rules at this point. The first thing Dick did was to put his "Flyin' Wedge" Dodge on a serious diet, trimming roughly 300 pounds of excess weight off the car. In Super Stock/F form, the car had to weigh 3625 to be legal, and that was partially accomplished by a full, twenty-gallon tank of gasoline. Since gas weighs approximately seven pounds per gallon, and Dick runs only five gallons in the street version, draining fifteen gallons resulted in roughly a 105-pound weight reduction. Remove that heavy spare tire and rim from the trunk, and we cut another sixty pounds off the Charger. The heavy steel hood was replaced with a lightweight fiberglass bonnet, resulting in another fifty pound loss. The glass hood, incidentally, features a fresh-air scoop above the carbs, producing an additional boost in power. The last one hundred pounds or so was extracted by removing the miscellaneous splash panels and dust shields from up front, along with the carpeting and sound deadening insulation. Put it all together as above and we've suddenly got a 3310 pound Charger! The weight loss is good for three miles per hour, and the cold air to the carburetors provides supplemental power.

The major engine change in Stage II of our project came in a boost of both compression and displacement. In Super Stock form, Dick went roughly .022 on the overbore and used 10:1 compression pistons, as he was limited by the class requirements. In the street/modified production version, however, the plan is to use 12½:1 ForgedTrue pistons and go approximately .050 on the overbore. This dimension is the practical limit for boring the 440 block, and shouldn't be exceeded. Order the high compression ForgedTrues with a diameter of 4.363 inches. Here again, use the procedure described in Part One of the series to achieve the proper clearance, rather than just boring the cylinders to a pre-set dimension. Now we are shooting for a clearance of .007, and the way to arrive at the correct fit is as follows. Assign each piston to a hole, mike each piston, and bore the corresponding cylinder to a dimension .005 greater than the piston diameter. Hone the last .002, and you will have the correct clearance. This will produce approximately a .050 overbore, resulting in a displacement of about 455 cubic inches. The deck height measured down into the hole to the flat base portion of the piston should be



.018-inch. The ForgedTrues will come with sufficient notches to provide the needed valve clearance. Use the same "trick" ring combination described in Part One of the series, ordering larger rings to account for the increased bore size. Unfortunately, there are no pistons available from Chrysler Corporation which can be used as a low budget alternative in this case.

Other than the increased bore size, the cylinder block remains unchanged from its condition as a Super Stocker, which we described last month. However, you can now use the special high performance Stage III '62-64 426 connecting rods from Chrysler (#2531589), which are in reality beefy Hemi forgings machined to wedge specifications. These rods are shot-peened and magna-fluxed at the factory, but are special order items and not legal in Super Stock class, as they don't come as standard equipment in the production line 440.

Moving up to the cylinder heads, the 1.780-inch exhaust valves will be replaced by larger 1.894-inchers, the 1962-64 high-performance 426 stage III exhaust valves (#2402322). The exhaust ports get opened up somewhat to match the valve size, but the intake ports remain untouched, as the original 440 intake valves are retained.

The last of the five changes performed for Part Two of Project Wedge was to remove the AVS 440 Carter carburetor and replace it with a 3116 Holley, to provide a 12 horsepower gain. Since the two manufacturers do not use a common CFM air flow rating system, it is difficult to quickly compare one carb to the other as far as size or air flow is concerned. In reality, it's not that the Holley is so much larger or that it flows so much more air than the Carter. Rather, the floats and metering system of the Holley are designed for a high performance application, while the AVS carb is designed with emission control as the primary consideration.

Last month we told you that the 440 Charger, in SS/F trim, cut a best of 11.79-119.50 with the four-speed transmission. With the same standard trans and the five modifications we have enumerated here (300 pound weight reduction, larger compression and over-bore pistons, heavy duty rods, larger exhaust valves, and Holley rather than AVS Carter carb), our Project Wedge pumped out a best of 11.21-125.43, with elapsed times averaging between 11.20 and 11.30. Speeds hovered close to the 125 mph mark. Not bad for a streetable machine, right? But if you think you've been impressed, wait till next month, when we let Landy run wild with a carbureted gasoline burning "match basher"! We're not going to let him mess with the wheelbase, but he's got some new equipment from Chrysler up his sleeve for the 'ol Wedge, and we think you're going to dig it. 

