simple swap:

give your gasser 426 hemi go-go

By Richard Lorenz

IT HADDA HAPPEN. It just *hadda* happen! With all the spotlights on the exhibition stockers, it was just a matter of time before some of the other out and out hot rod boys would go the same route.

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Backed by Econo Car of Brooklyn, a car rental firm that handles some phases of speed shop operation, owner Lanz (who is a brakeman on the Long Island Railroad) and driver-mechanic Black (who runs the speed shop end of Econo Car) pulled the 426 cubic inch Dodge wedge engine out of their Willys and prepared for the long drive to the Golden Commandos' headquarters in Detroit, Michigan.

When the boys returned to Econo Car they unloaded one of the most potent engines available on the market, a 426 Plymouth hemi which had served time under the scooped hood of Al Eckstrand's altered wheelbase go-toy.

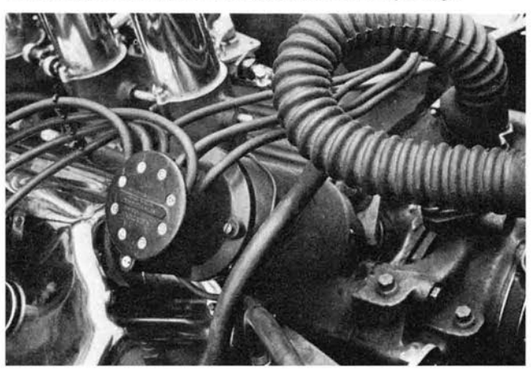
To this they added Hilborn tuned stack, direct port fuel injection, a Vertex magneto and an Isky 550 Super LeGerra grind flat tappet camshaft. S&S Speed Shop footed the bill for these goodies plus much of the car's other California-built bolt on's.

Fascinated with the thought of running one of the only *few* 426 hemi gassers in the country Lanz and Black made the simple swap and bolted together a legal 2,600-pound A/Gasser. Results: Consistent 10.50's with speeds of 130 mph!

The boys kept this up, winning many local gasser contests but never really receiving any just desserts for the multitude of hours and dollars that had gone into their Willys. Since they already owned an immaculate stock appearing Willys, a "King Kong" Plymouth hemi *and* had S&S Speed Shop and Econo-Car's blessings, out came the engine, off came the wheels and the body.

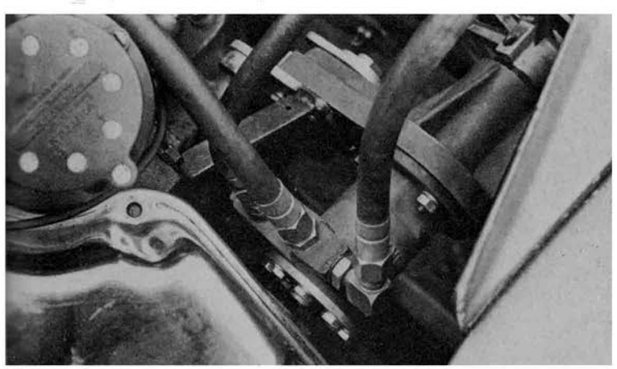
Under the '40 Willys body now is a '39 Willys chassis which is "beaucoup" light and five inches shorter than the original '40 rails. The '39's wheelbase measured a legit 100 inches, but the new wheelbase measures a scant 88 inches. Rear wheels have been

Vertex magneto lights up the gasser's Champion plugs via the stock MoPar hemi engine silicon wiring setup.



Reworked Torqueflite transmission uses eight instead of standard seven clutches, increased line pressures.

Hilborn belt-driven funny car pump uses a 170 b:, ass jet. Injectors use 9A alky-mix nozzles. Lines are aircraft.



Jerry Lanz primes injectors while driver Joe Black cranks starter. Fuel tank mounts out in front of radiator.

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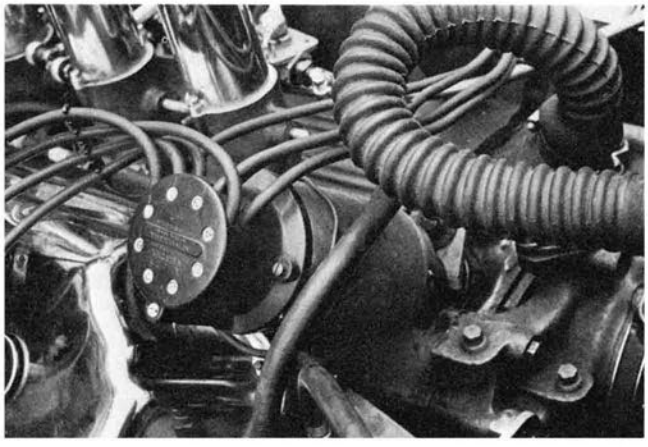

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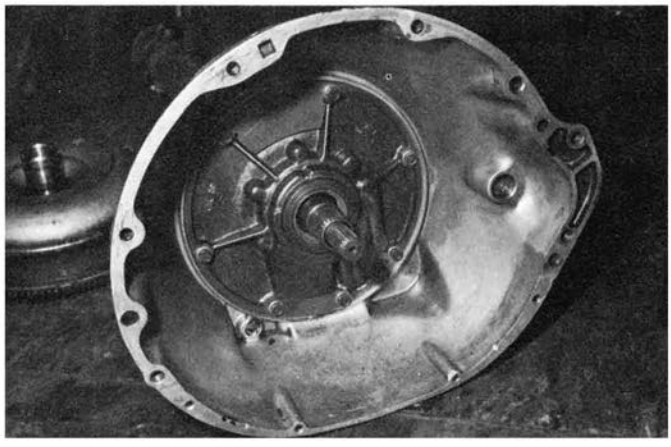

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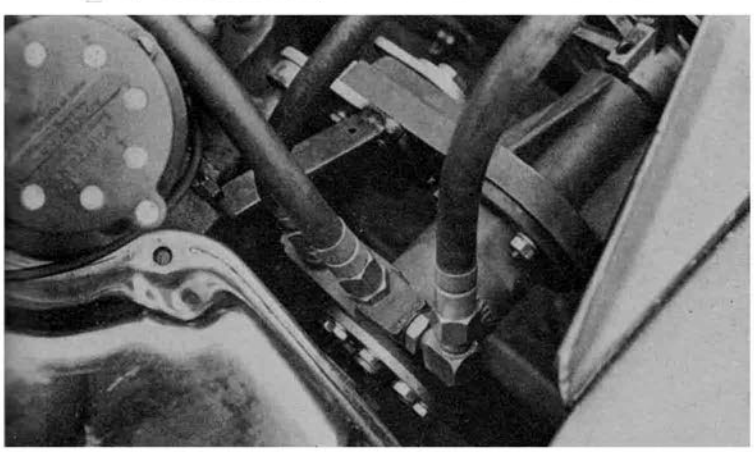

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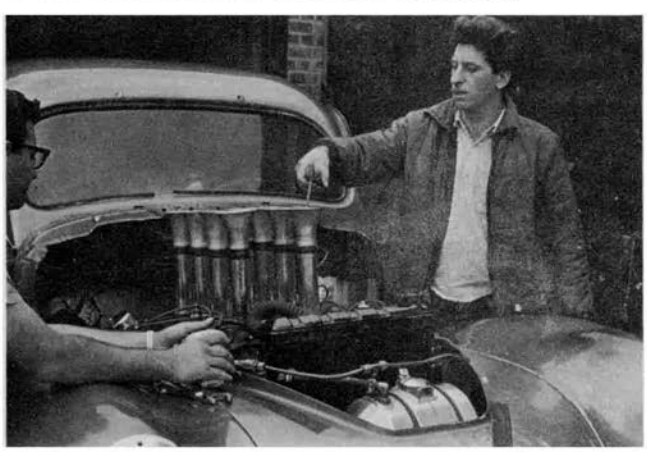
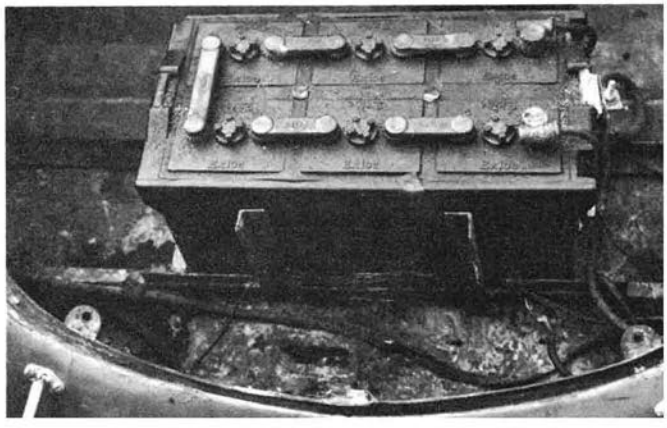


hemi gasser

Hilborn-injected hemi is out of Al Eckstrand's FXer funny Plymouth c d is Isky-cammed. A trunk-mounted diesel battery and a ballast bumper account for much of this gasser's fantastic weight transfer.

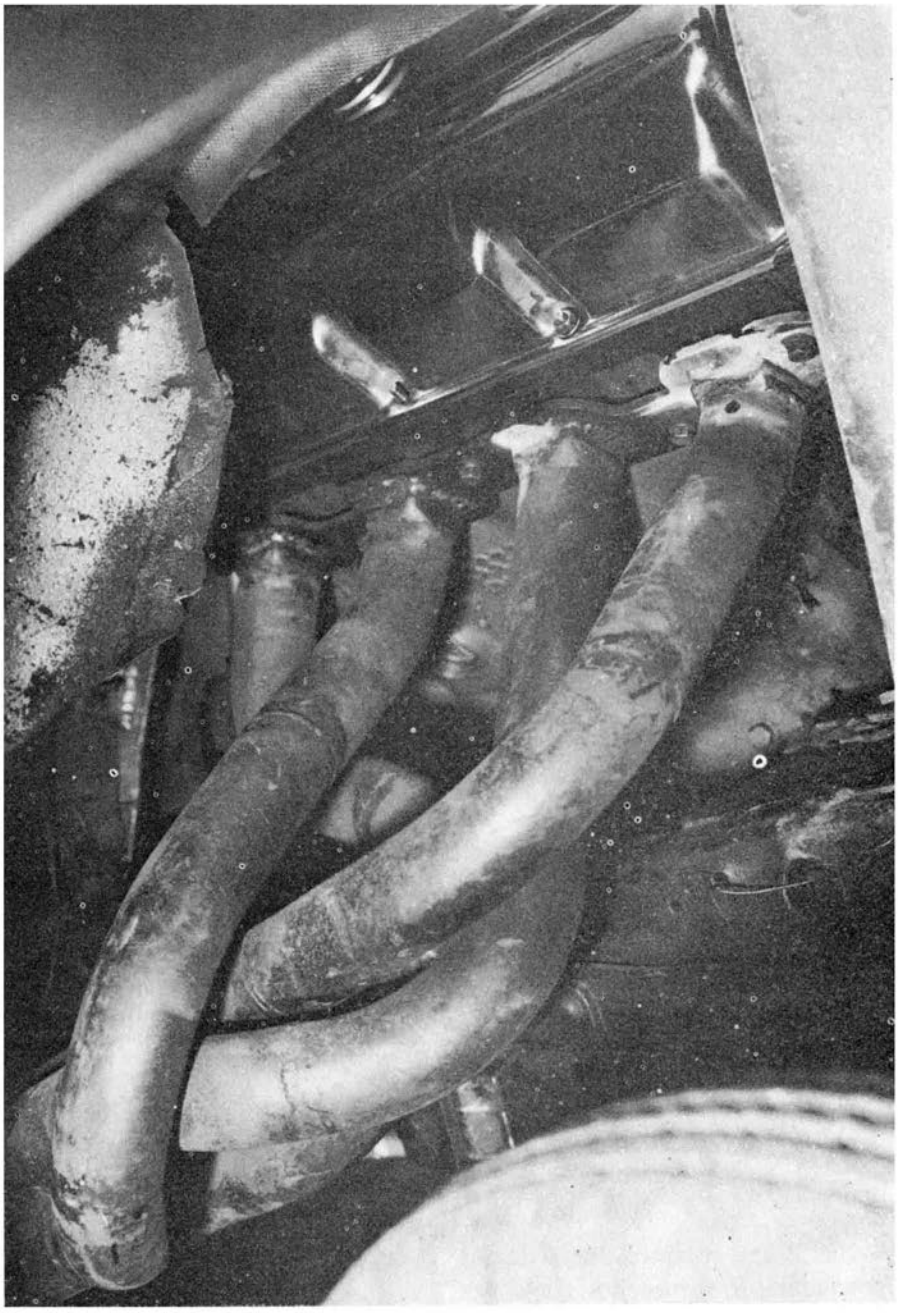


Willys front end clears a deepened oil pan. An FXer must run its tie rod through a sleeved oil pan. Note drilled-out mounts to save weight.

moved forward a full 12 inches along with special clipped leaf springs, Down/Lock shocks and a 4.88 MoPar Sure Grip rear.

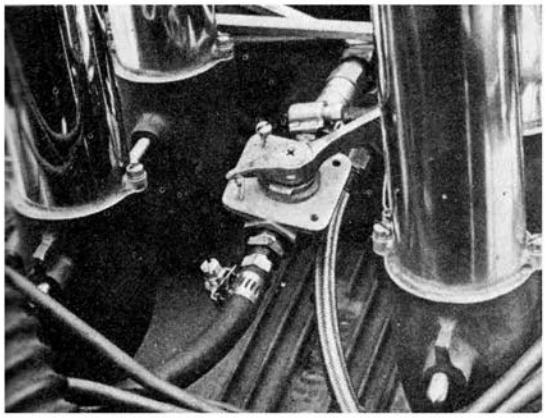
A complete rear end assembly out of a super/stock drag car was installed between the custom springs. The original rear used with the 426 Dodge wedge engine was composed of Pontiac and Olds components, but was put to pasture when the parts refused to take the hemi's torque. The original aluminum weight transfer (lift) bars were junked also, as bite is not one of the problems. Too much traction and wheelstands have been the big problems to date!

When the hemi-milled car first was installed and set up for legal gas class racing its custom driveshaft had to be cut four inches to make up for the engine's dimensions. Altering the wheelbase called for another cut to compensate for the relocated rear end. A 12-

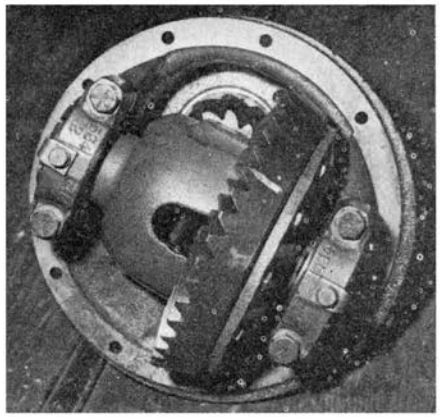


Performance Auto designed and fabricated the all-out tuned headers. In order to get the maximum amount of scavenging from big ports, large diameter tubing was used.

Fuel shutoff mounts between banks of injector stacks, is dash-controlled.



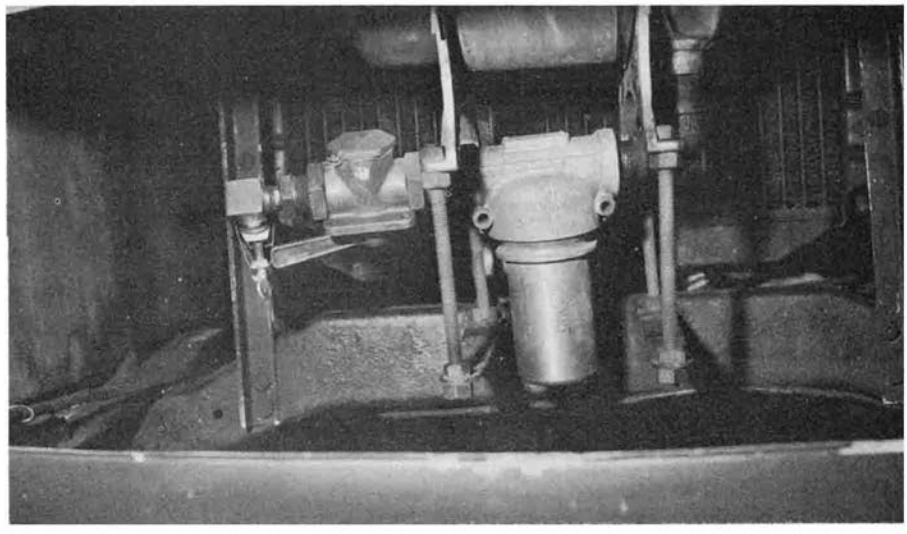
Limited slip rear carries 4.88's or 4.56's depending upon strip, tires used.



All - aluminum interior sports carpet, pushbutton selector, 'glass seats.

The funny wheelbase Willys is painted to match its ever-present spare parts and fuel truck. The area formerly occupied by a grille now houses an aircraft aluminum fuel filter plus some additional plumbing. The fuel tank mounts above these goodies.

hemi gasser



inch slice took care of that problem.

Joe Black retained the original Torqueflite transmission that was used behind the 426 wedge and brought it up to "funny car" standards. To convert from wedge to hemi specifications, he increased the total number of clutch plates from seven to eight, raised the line pressures and set the unit up for 2,500 to 3,000 rpm torque load starts.

Because of the 12-inch setback the Ross steering unit and Olds drag link do not present any clearance problems. When the car was being photographed its I-beam solid Willys axle (drilled out) was still in place as a new, all-chrome CAE dragster axle had not yet arrived. Disc brakes will be used along with a lightweight competition front end. Besides being extremely functional. The all-chrome front end is a great crowd pleaser during those sky-high wheelies!

In true drag car fashion the interior was done up in plush naugahyde and starkly functional polished aluminum. Pushbuttons (just like the MoPars used to have!) and a big tach face the driver as he scoots down through the traps. Tinted plexiglass windows help the image along and also set off the Candy Green outer garb.

As Lanz and Black and some of the boys at Econo-Car plan on an extensive tour Southward with their

(continued on page 66)

which the heels of the beads make contact but whose sidewalls are pulling away from their rims. The effect is reduced shoulder contact, and lower heat buildup during the remainder of the run, as well as a saving in horsepower and a gain in top speed.

Are narrow rims and low tire pressures the best all-around answers?

There is no such thing as an "all-around answer". Even the answers I'm giving you today may not hold true tomorrow because we are continually discovering new ways of improving traction.

For instance, when going from a 327 to a 396 Chevy we have to go up at least five to six pounds pressure, from 15 to 21, to cope with the increased horsepower and make a car more stable. Additional pressure is needed for lateral stability or you begin to fishtail under power and cannot start as hard.

When using the lower pressures you have to get the car rolling before you can nail the accelerator to the floor. For higher hp we often need from 30 to 40 pounds of pressure, so the tire must be built accordingly.

How much "slingout" do you encounter?

At 210 mph it's not unusual to find a 1.5 to two-inch diameter increase, and this spells six more inches in circumference — an extra six inches of travel for each turn of the wheel. You have to take this into account when spacing your headers.

On some cars which rise appreciably right at the starting line the "slingout" is automatically accommodated. However when you let off on the gas after the traps the body comes down and begins to rub against the expanded tread which is still at full "slingout".

Can you limit "slingout"?

We can control "slingout" by stiffening the tread plies. However there are limits to tire stiffness, because the stiffer the tire the less deflection, hence the less contact area it will have. We have used fiberglass for stiffening the breaker plies but have not gone to steel cords.

What, then, does the footprint tell you?

The marks left on the track give a pretty fair idea of the footprint. Footprint alone doesn't mean that you are getting good traction. If you see two black strips at the outer edge and nothing in the middle, the tire needs more air. If you see a heavy center mark the air pressure is excessive. Air pressure and "slingout" work together in bringing out the center of the tire. Therefore it pays to note the footprint about 100 or 200 feet past the starting line.

How about when you see wavy tracks?

This generally means that the tire is hopping under power, with the narrowest portions of the wave showing up under minimum loading and the widest portions as traction is regained. This may be caused by a wavy condition or by suspension problems. You may also see intermittent wheelhop marks. This, too, is indication of a suspension problem.

COMPETITION HEADS

to the headers and the intakes matched to the intake manifold gaskets or manifold itself.

Usually this can be accomplished simply by hogging 1/32-inch from the port walls and polishing for maximum flow. To prevent turbulence from detracting from flow efficiency, *never* increase port size larger than the area at the entrance to the valve. Keep it large near the valves and taper smoothly toward the gaskets. Grind all rough spots away from the combustion chambers to prevent pre-ignition and flow interruption.

Contrary to popular belief, the idea behind custom headwork is not to open everything in sight to the largest dimensions possible. The biggest valves, ports and combustion chambers are not condusive to performance. *Shape* of the port, size and taper of the valve and size and shape of the combustion chambers have the most effect on performance. A large, poorly shaped port actually can *decrease* breathing efficiency and cause a drop in horsepower.

Polishing and enlarging the combustion chamber can cause a drop in horsepower and compression ratio unless heads are milled for compensation. The wrong shape chamber can reduce the ability of the chamber to quench the mix for increased burning.

If you are *not* set up for headwork and do not have the time to grind and polish away, check with some of the guaranteed, reliable porting shops such as Mondello's, Roger's, Crane, etc. Supply them with all engine and car specifications, *and* a check, and you'll be well on your way to the winner's circle.

HEMI GASSER

hemi Willys, much experimentation has been going on. The engine is set up with 9-A nozzles and a 170 bypass jet which seems to be working out just fine with Alky.

Future plans call for new jets and a healthy charge of nitro in the tank that fits between the radiator and the grille shell. With the 4.88's and 10 pounds of air in the ten-inch M&H Dragster slicks Black just ripples off the line, front wheels off the ground and the hemi *really* humming. By mounting the big slicks on Buick Wildcat-type steel wheels the boys freed themselves from the problem of leaving full footprints and getting those front wheels up.

A diesel truck battery ballast-mounted in the trunk, a fully loaded bumper and a hemi that sings a sweet tune through tuned headers by Performance Auto in Lindenhurst, Long Island, are all it took to complete the transformation of an A/Gas Willys into an A-1 "funny" wheelstander.