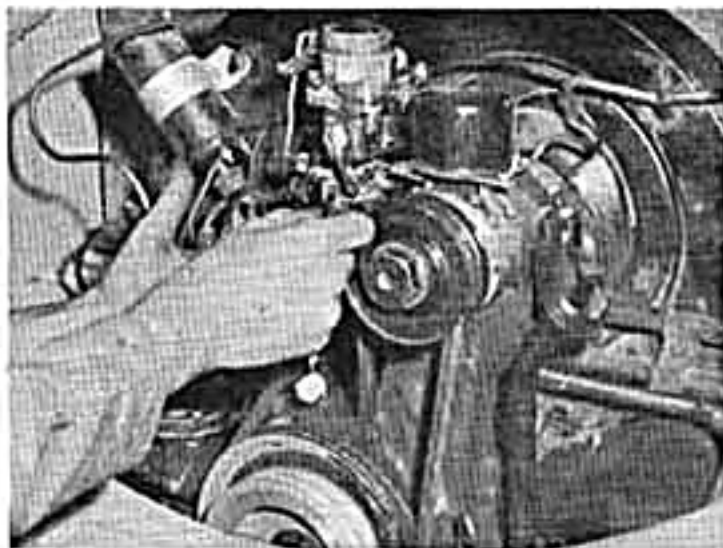


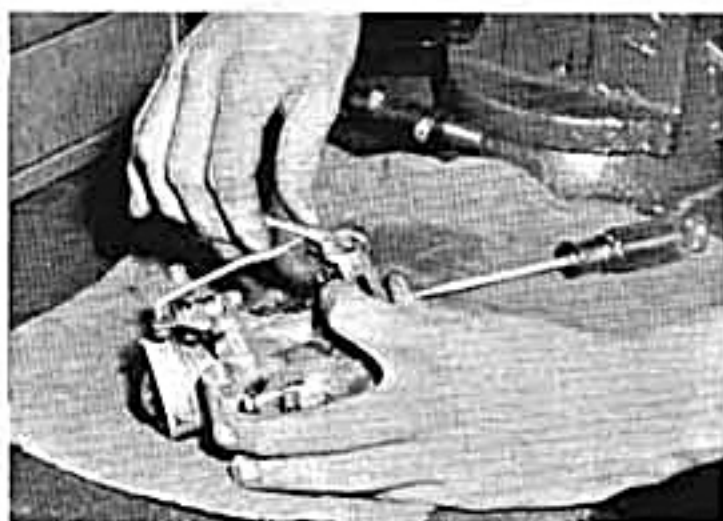
APRIL '57



1 Remove carburetor for re-jetting, fuel pump for beefing up. Heat risers are then blocked off, and the voltage control unit on top of generator moved to make room for supercharger.



2 Special brackets support voltage regulator which is set upward and to the right of generator. No alterations are made to the distributor other than changing the points.



5 Before disassembling the carburetor for a change of jet size, attach simple slotted choke control bracket near the carburetor throttle valve shaft, underneath standard nut.



6 Removal of four screws permits the VW Solex carburetor to be pulled apart. There is no need to disconnect the choke rod as the only jet to be changed is readily accessible.

If you want to squeeze out a little more go, then follow these

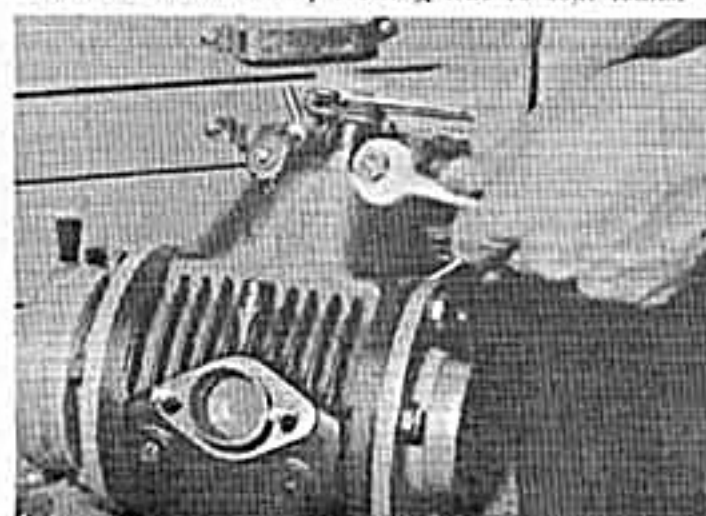
simple steps . . .

Pressurizing

9 Extra long studs are screwed into carburetor flange. A new gasket, covered on both sides with Permatex is dropped into place. This is a precaution against air leaks after assembly.



10 Longer studs on carburetor extend through intake manifold and are bolted on the out-and-opposite side. Small copper gaskets are used under each self locking nut to seal leaks.





3 Block carburetor heat riser by reaming out gasket with knife and inserting pennies in resulting hole. Blower creates own warmth.



4 Lightweight spring is replaced with stiffer coil. This insures maximum supply of fuel to the carb and eliminates too lean a mixture.



7 Air correction jet which bleeds air to fuel as it enters venturi requires changing. Old jet size is 200 (left). New size is 160 (right).

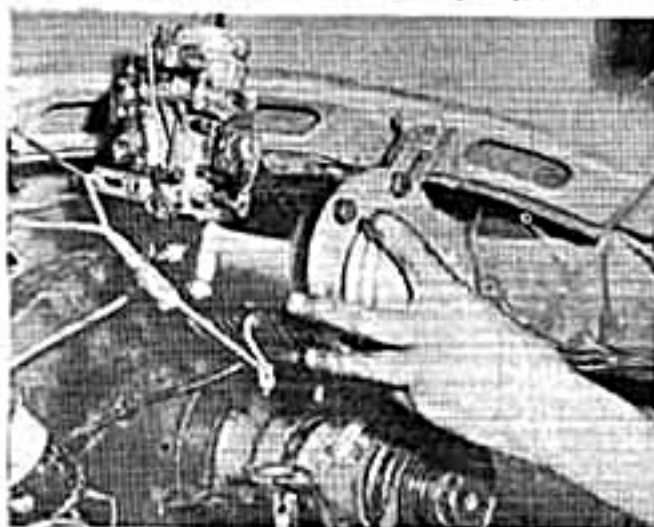


8 Unscrew old jet and replace with air correction jet. At this stage be careful not to burr or score or mutilate with rounded screwdriver.

Your



11 Judson blower with carburetor is dropped over intake pipe. Supercharged VW's run best on the best grade Ethyl gasoline.



12 Completed installation looks like this. A drip type lubricator is attached to the firewall at the engine's left. Ready to burn rubber?



By **BILL CARROLL**

PROBABLY the most popular single engine modification for VW's, and rightly so, is the installation of a supercharger. This has been a popular hop-up trick for several other makes since the war, ranging from Cadillacs through Fords to M.G.'s, but now everybody's tossing out the tools for these and going after the VW market. Problem with the aforementioned mills was that they were already hopped up to some extent, and didn't always respond in a big way to three hundred dollars worth of added air. The Wolfsburg wonders, though, are quite another story.

All the way through the VW induction system there are built-in obstacle courses for the fuel-air mixture, from the tiny valves and moderate timing to the cramped intake manifold. This is perfect for blowing, which can ride roughshod over these and provide a respectable pressure at the intake valve. As a matter of fact, though, the VW's restrictions are such that five pounds boost at the blower may dwindle to one or two pounds, at best, at the valves. The outputs of some commercial blowers may sound high for a touring engine, but on this car you need it.

The installation described here is one of the most popular, being the product of Judson Research and Manufacturing Company, Conshohocken 7, Pennsylvania. Kits are available, in the box or installed, at prices ranging from \$160 to \$175, making it one of the cheapest ways to power for the VW. The physical problems of bolting it in are described to the left, and shouldn't present many problems. Service durability of these units is very good, as they are very simply constructed.

The positive-displacement vane-type blower can be straightforward to start with, having no internal gearing problems, but the contact of vanes with the surrounding housing can be a sore spot. Charlie Judson has moderated this by using a very inexpensive composition vane which will wear itself in most cases instead of scoring the more costly housing. Under hard use these vanes may need replacement at around 10,000 miles, and the job is very cheap. For best results set drip lubricator to feed slightly more oil than recommended in Judson instructions. This is also good for the engine internals, when being pushed.

If you plan to go further with your VW engine, always try to keep compression ratio low and raise the blower pressure gently within the limits of the machinery. This would mean a slightly smaller blower pulley. Extreme racing cams are also not called for, a good road grind being more suitable. It's not a Porsche engine, but it's by far the next best thing.