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W. P. PELZ, M.D. and E. E. SCHMIEDEL, M.D.  
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Judson Mfg. Company  
Conshohocken, Pa

Gentlemen,

appax.6 weeks ago I decided to have one of your superchargers installed in my Karmann-Ghia 1964.I inquired into all kinds of methods to increase the much needed power and none could match your supercharger in price,simplicity of installation and power.

That little VW is a new car now.Lots of passing power and no loss of dependability.It feels like the P<sup>u</sup>rsche with the 75 HP engine and the gas consumption has not increased. Noise level unchanged.

I am most pleased with the Supercharger and feel that many more people should take advantage of this method of making te VW a safer car.

sincerely yours

W.P.Pelz,M.D.  


working order and that it's the right model for your own engine.

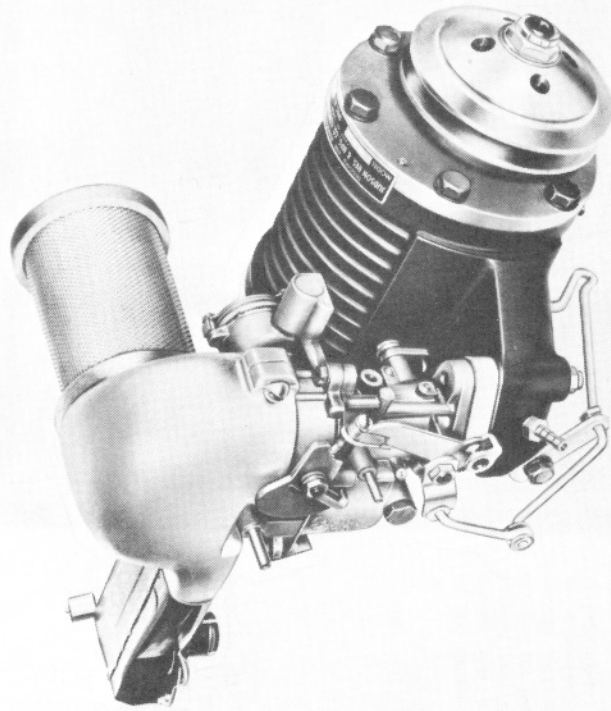
These last points deserve emphasis since there are so many used blowers available on the market now. Lots of people have bought 'em, thrown 'em on, not followed directions, and then been disillusioned because they thought it was the machinery rather than mechanic and/or driver that caused The Trouble.

So check with the manufacturer about proper match of a blower to your engine before you buy a used one. Make sure the blower hasn't been run dry and burnt its vanes. And be sure you have or get a full set of the right directions before you start work. Of course, one good way around all this is to buy a new unit. You pay your money and takes your choice.

Do what the directions say and never mind the bright, expert tip from your neighbor. It's even worth the cost of a long distance call to the maker's plant to clear up any questions considering the \$200-plus cost you've invested and the value of your machinery to begin with.

Maintain the supercharged engine carefully; plugs, timing, valves and carburetion all become additionally important since you are taking extra work out of the machine.

Good lubrication—for the engine and for the blower—will make a sizeable difference. A heavy duty racing oil in the sump and a castor oil in the blower's lubricant bottle aren't essential but will help.



Complete supercharger and air cleaner for 40 hp VW of 1961 and after is basically the same as earlier model but differs in detail so the two are not directly interchangeable.

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MAY 1966

## FOREIGN CAR GUIDE

# SUPERCHARGE

# YOUR BEETLE

**What you get in better performance and how to live with a supercharger without having mechanical problems.**

By A. C. BENEDICT

and D. C. BENEDICT

► Slap on a supercharger? Sure. Your cousin knows someone who's had a blower on his VW for years. But your neighbor put one on his six-month-old VW and totalled the engine within a week.

Contradictory reports like these have been a puzzle to VW owners for years, ever since superchargers began to sell in large numbers. One result: hot arguments pro and con blowers every time two or more car nuts start talking ways to convert urge to surge in the modest Wolfsburg machinery.

Confusion on the subject just isn't necessary. The matter comes down to simply this: Yes, blowers can do a successful job; and, yes, you can break up a supercharged engine.

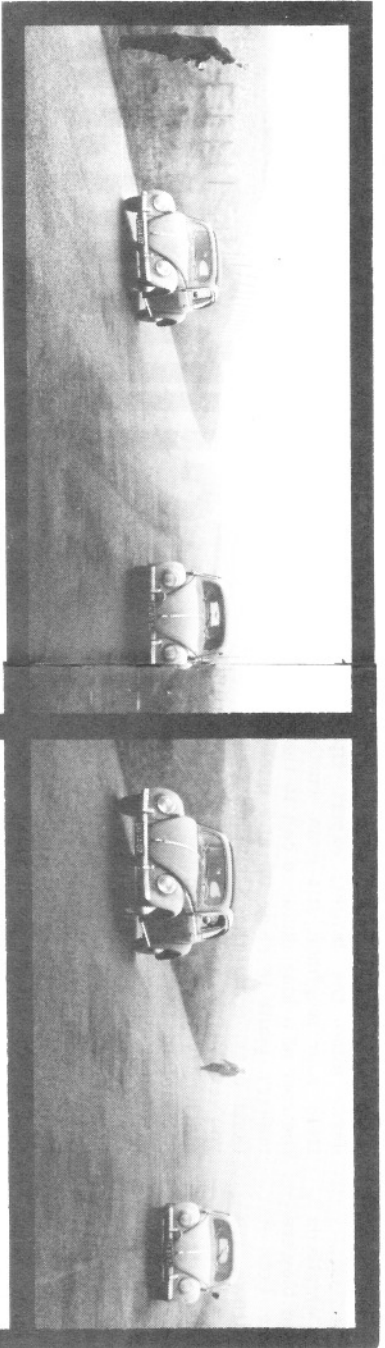
This is the heart of the matter: a good blower, installed right on a well-maintained engine can increase torque

throughout the machine's useful operating rpm range without trouble and as long as it's not overrun. Blowers, particularly on the low powered VW, can do a power-boosting job, but they have no self-limiting upper end. That is, they can let an engine overrun itself before the blower's efficiency is passed to feed large wads of air-fuel vapor to the machine. And poor maintenance or an uncorrected engine deficiency will merely pull down that speed point and hasten that critical wear point at which the works give up. So it can be done and, sure, you can also break up your engine like anything else that's overworked and under maintained.

There's no need to avoid superchargers on the basis that they must invariably wreck an engine. I operated a blower on a '61 VW for many thousands of miles with good results

## SUPERCHARGE

**RIGHT:** Staged in Holland, this acceleration comparison pitted supercharged sunroof against unsupercharged solid roof VW.



and without any blower-induced engine problems at all.

It helped on hills, reduced gearshift rowing and generally provided enough extra push to raise the VW from the dreary to the adequate category. But this was without trying to conduct a Salt-Flats revolution; rather, the blower served as a moderate assist alone, as it is designed for on the VW engine.

A quick review, then some detailed looks at what it takes to do the job right will help you decide pro or con about a blower in your own situation.

### BLOWERS WILL

It's worth repeating: a blower on the VW can increase its torque over the Koshier operating range. The dividend to you is more flexibility and less shuffling with gears.

### BLOWERS WON'T

A supercharger won't raise the effective rpm range of your VW more than a few hundred at most. The limit is strictly a function of the design characteristics, materials, and tolerances built into the engine itself. And Wolfsburg does a first class job in this category to begin with. Thus you can work safely only within the limits originally built into the machine. Neither will a supercharger turn your VW into a drag strip dragon with dazzling acceleration; the

blower's inertia and the fluid dynamics of gas flow in and out of the engine eliminate radical acceleration in a nominally bolt-on street version of the VW cum-'charger.

So don't mistake what you're doing for yourself. Blowers are attractive because at about \$200 and up new, you make a bolt-on performance improvement without going into the engine itself.

But if you're not going into the engine, it must then be in good order to make the add-on worthwhile and to keep from overstressing the engine regardless of how carefully you run it. On the one hand, don't 'charge a brand new engine; it needs mileage to bed-in for the added work a blower will have it do. Wait at least 3,000 miles, or better yet, until it's out of warranty at 6,000.

On the other hand, it's useless strapping a blower on a tired four-banger that can barely wheeze around the block; this machine needs inside work before it can even go it alone, much less with added draft through its works.

### HOW TO DO IT RIGHT

If you decide to supercharge, it doesn't matter how sanely you run the machine if you don't assemble the package right to begin with. Start with a good engine and have it in proper tune. Likewise, make sure that the blower is a good one, in proper

Cars approach 250 meter mark (not quite the length of a football field), the supercharged car is 2.2 seconds ahead at 16.8 seconds compared with 19 seconds for the stock Beetle.

Photographer got this sequence of shots from a 1.6 Porsche Convertible shooting at 5 second intervals very early one misty morning.

At 500 meters the difference was a good 4 seconds for the supercharged car the first time around and even more on a second run made without the photographer.



# JUDSON



RESEARCH AND MFG. CO.  
CONSHOHOCKEN, PENNA.

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CABLE: JUDCO

Dear Sir:

Thank you for your inquiry of recent date. We have enclosed complete information on our model VW Supercharger as requested. As a Volkswagen owner you are interested in better performance and more power. The Judson Supercharger with controlled manifold pressure will give this to you silently and without affecting the reliability of this dependable car in any way.

Read the enclosed literature over carefully. A Judson Supercharger on your Volkswagen will give you this improved performance and surging power smoothly and dependably. It is a new and exhilarating experience in VW driving. You will note that we furnish a complete supercharger installation in the form of a kit designed specifically for the Volkswagen engine. Installing it is an extremely simple matter and consists of bolting the supercharger to the engine in accordance with the illustrated installation instructions furnished.

Here is your opportunity to join the thousands of Volkswagen owners throughout the world who are getting improved performance and increased satisfaction from their Volkswagen by supercharging with Judson. It provides amazing acceleration, a higher cruising speed with less engine effort and better control for safer driving. The lumbering pace up steep hills will be a thing of the past. A Judson Supercharger gives you the kind of performance you need for safe highway driving.

Don't let your Volkswagen dealer talk you out of supercharging because he has agreed to sell VW products only. Order direct from the factory as have thousands of other Volkswagen owners. You can place your order with the full assurance of getting guaranteed quality automotive equipment that will increase the power and performance of your Volkswagen by at least 45%. Order your Judson Supercharger now and enjoy a new thrill in driving pleasure.

Sincerely,

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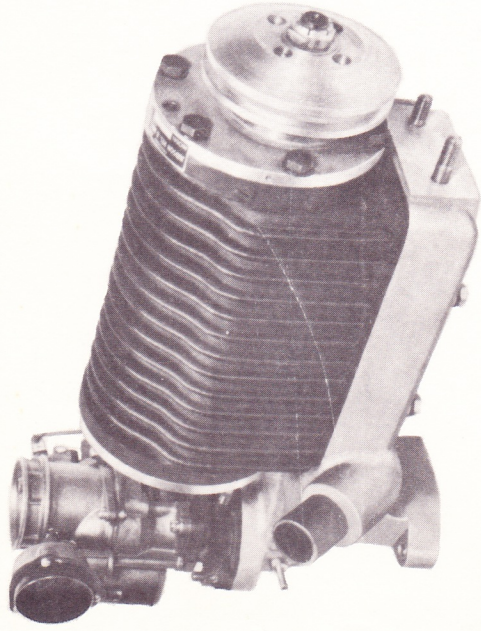
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