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March 2001

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36 HORSEPOWER DYNOSHOOTOUT

The Battle
of the
Mouse
Motors

STORY AND PHOTOGRAPHY BY DAVE CORMACK

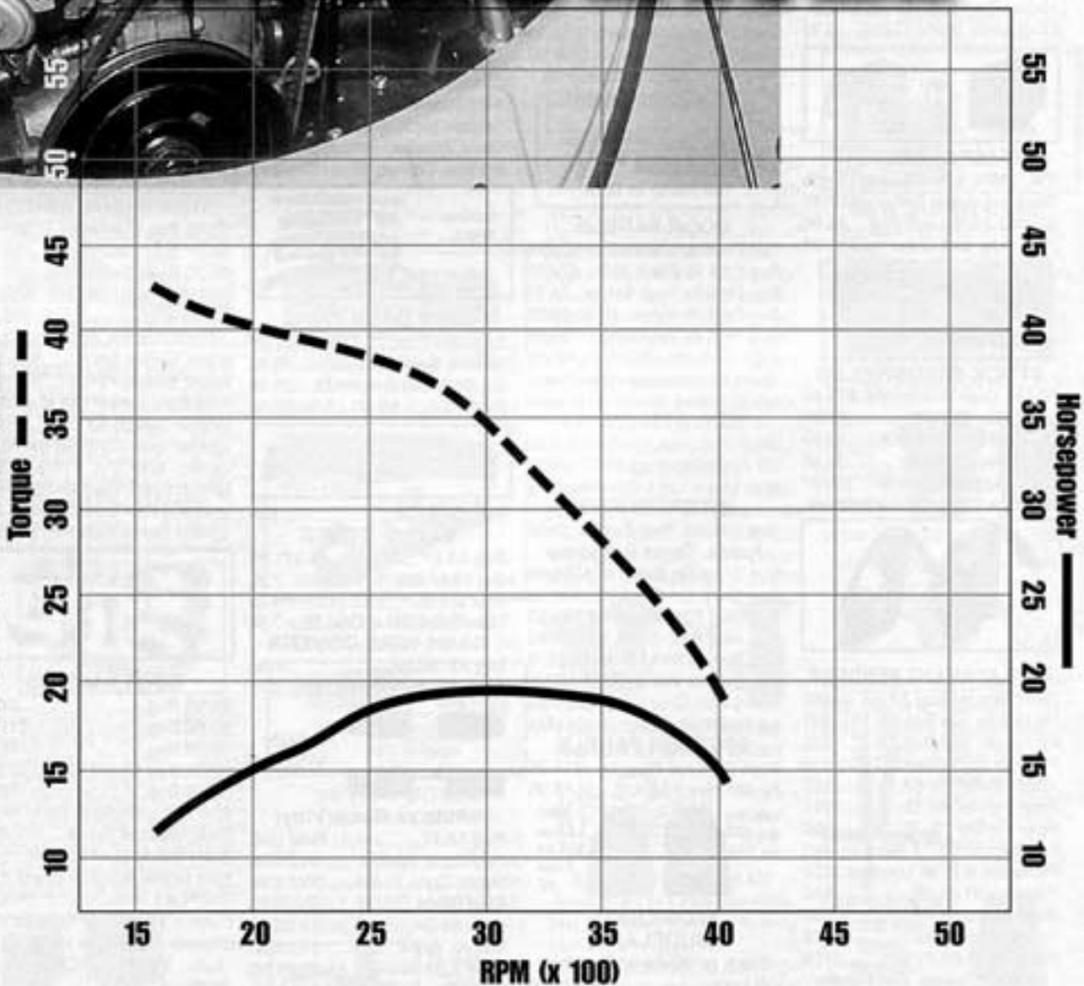


Dave Cormack's Stock 1955 36-hp Sunroof

First off, for the baseline, we strapped my '55 Oval Sunroof down and let her rip.

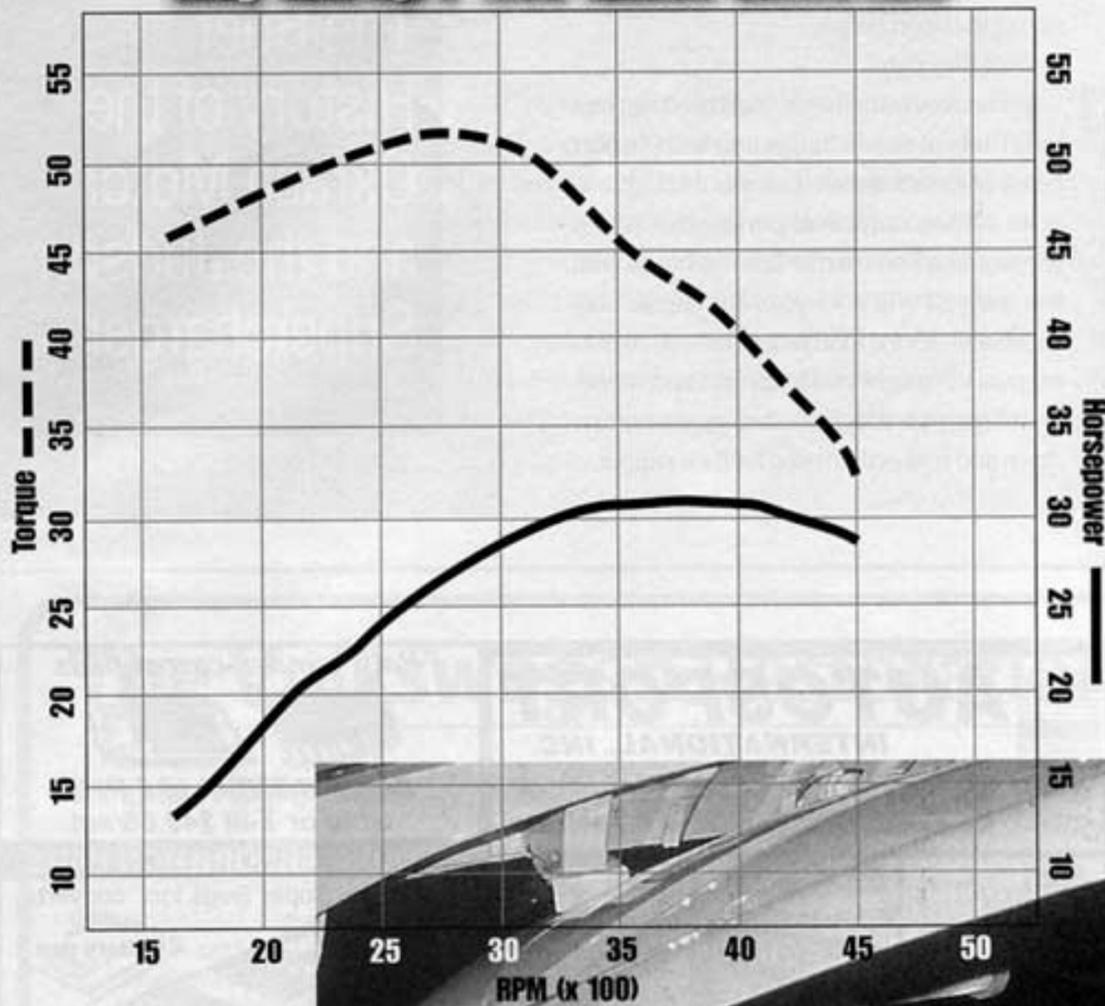


As you can see, we managed a best of 19.8 hp at 2900 rpm, and 42.3 lb-ft of torque at 1600 rpm, which, with the correction factor of a chassis dyno, is about equal to the VW-advertised 36hp. Not too bad for a 45-year-old car that has had no major engine work done, wouldn't you say?



While we photographed the two cover cars gracing this issue of *VW Trends*, I mentioned to the two Kohrogi brothers, Roy and Acey, that surely at one time they must have, as part of a sibling rivalry, raced each other—Acey in his immaculate Judson supercharged 1960 Convertible, and Roy in his equally sweet 1956 Sunroof Beetle. To my surprise, they replied no, they had never done that, but they were somewhat curious as to who had the most “Vintage Speed.”

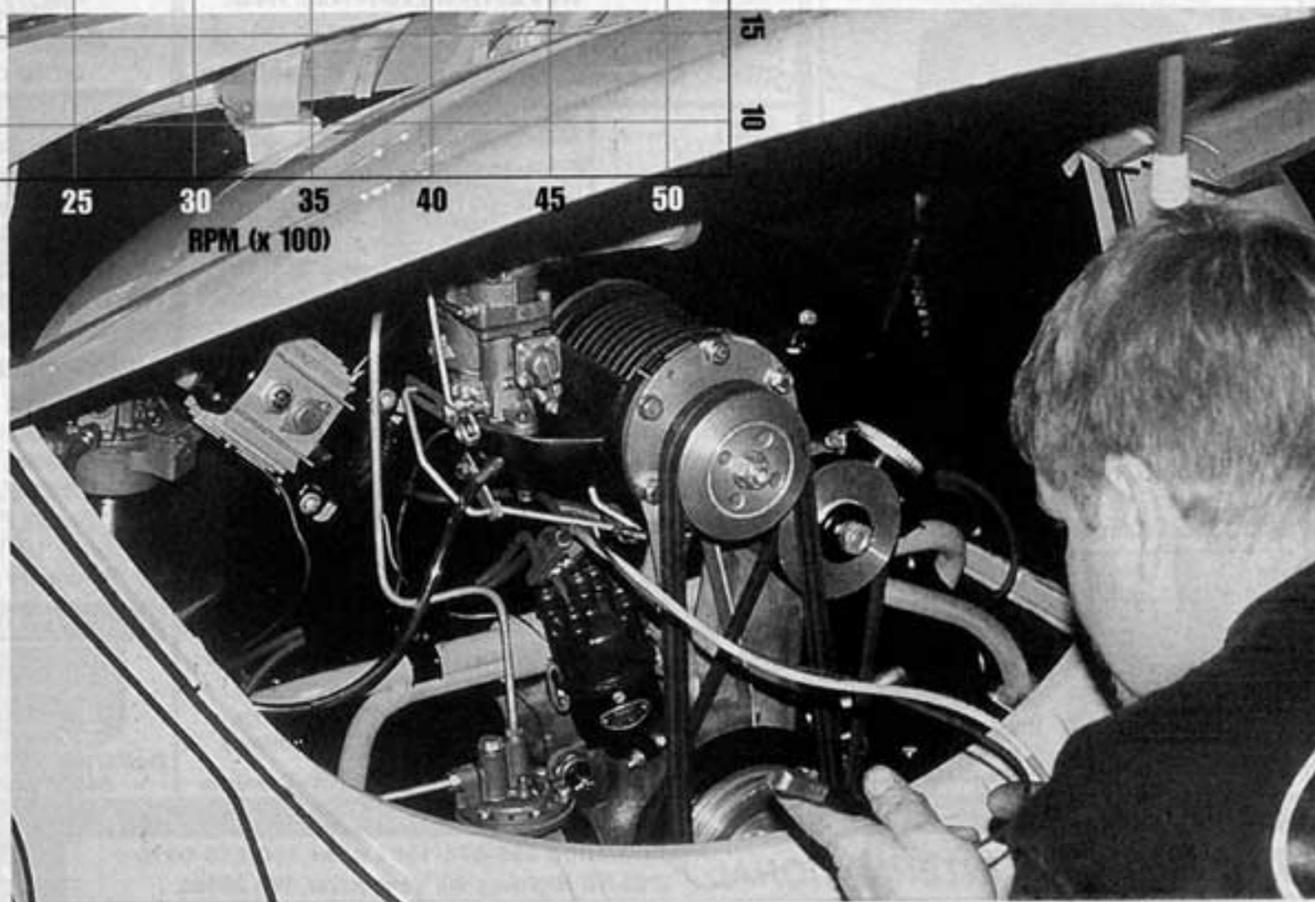
Acey Kohrogi's 1960 Judson Convertible



Next we grabbed Acey's 1960 Judson-equipped Convertible and put it through its paces.



Not too bad, and with the 31.3hp at 3900rpm, we will agree that a Judson Supercharger, installed on a healthy 36-hp engine, will indeed give you a 30 percent boost in horsepower.



The Battle of the Mouse Motors

Well, I jumped into the fray and said that if they were game, we could settle it the safe, legal way, by putting these cars on a chassis dyno to see who had the most power where the rubber meets the road.

We met with Barry White, of Barry White's Street Rod repair Shop, in Placentia, Calif., to see if we could hook up the Beetles to the chassis dyno for a few runs. Now, be advised that Barry is used to having mega-dollar, mega-horsepower street rods on the dyno, so he just kinda laughed and made us promise not to put too much horsepower to the ground and break his dyno!

So, one beautiful Saturday morning, Roy drove his '56 Sunroof, and Joe "Mr. Okrasa" Ruiz, brought Acey's Judson Convertible, (since Acey was on vacation at the time). Bringing up the rear, I brought my bone stock, 75,000 mile, heads-never-been-off, 1955 Sunroof (VW Trends, October 1995) Beetle to use as a base

line.

I knew that Volkswagen advertised its car as 36 hp at 3700 rpm at the flywheel, and I was curious to see what the old gal still had after all these years. I was also aware that the Judson Manufacturing Corporation, of Pennsylvania, had advertised a 30 percent boost in horsepower for a stock 36-hp engine with the addition of its supercharger.

Were they right?

Is it better to ram the air/fuel mix down one hole (Judson Supercharger and a single port head) or to suck the air/fuel mix through two holes (Okrasa carbs, dual-port heads)? Who is gonna come home to the Kohrogi house with top honors? Will a 45-year-old engine stay together under the mechanical stress dyno testing puts it through? Let's watch as Chad Vocele, one of Barry's ace "dyno dudes," straps the cars down and makes them sing for their supper...

1951: The Year of Speed

The Brief
History of the
Okrasa Motor
and the Judson
Supercharger

OKRASA:

Following his graduation as a mechanical engineer in 1951, Gehard Oettinger began the Okrasa company (derived from Oettinger Kraftfahrtechnische SpezialAnstalt) and devoted his efforts to giving more power to the stock 25- and 30-hp Volkswagen engines. They quickly gained in popularity in the mid-'50s, and soon the kits came in two versions: TS-1200 and the TSV-1300/30. The TS-1200 kit consisted of a pair of Okrasa's special twin-port cylinder heads, dual Solex 32PICB carburetors, all linkages, fuel lines and manifolds, while the TSV-1300/30 also included a chromoly 69.5mm stroker crank (and spacers to extend the pushrods and head studs), increasing the capacity to 1295cc. To install the kit, the engine had to be completely torn down. The heads featured larger inlet valves (33mm as opposed to 31mm, while the later kit for 34-hp engines came with 34.5mm valves) and the Okrasa logo cast in between the rocker studs. Although the customer could fit the kit himself, it was also possible to arrange for Okrasa to carry out the installation.



JUDSON SUPERCHARGER:

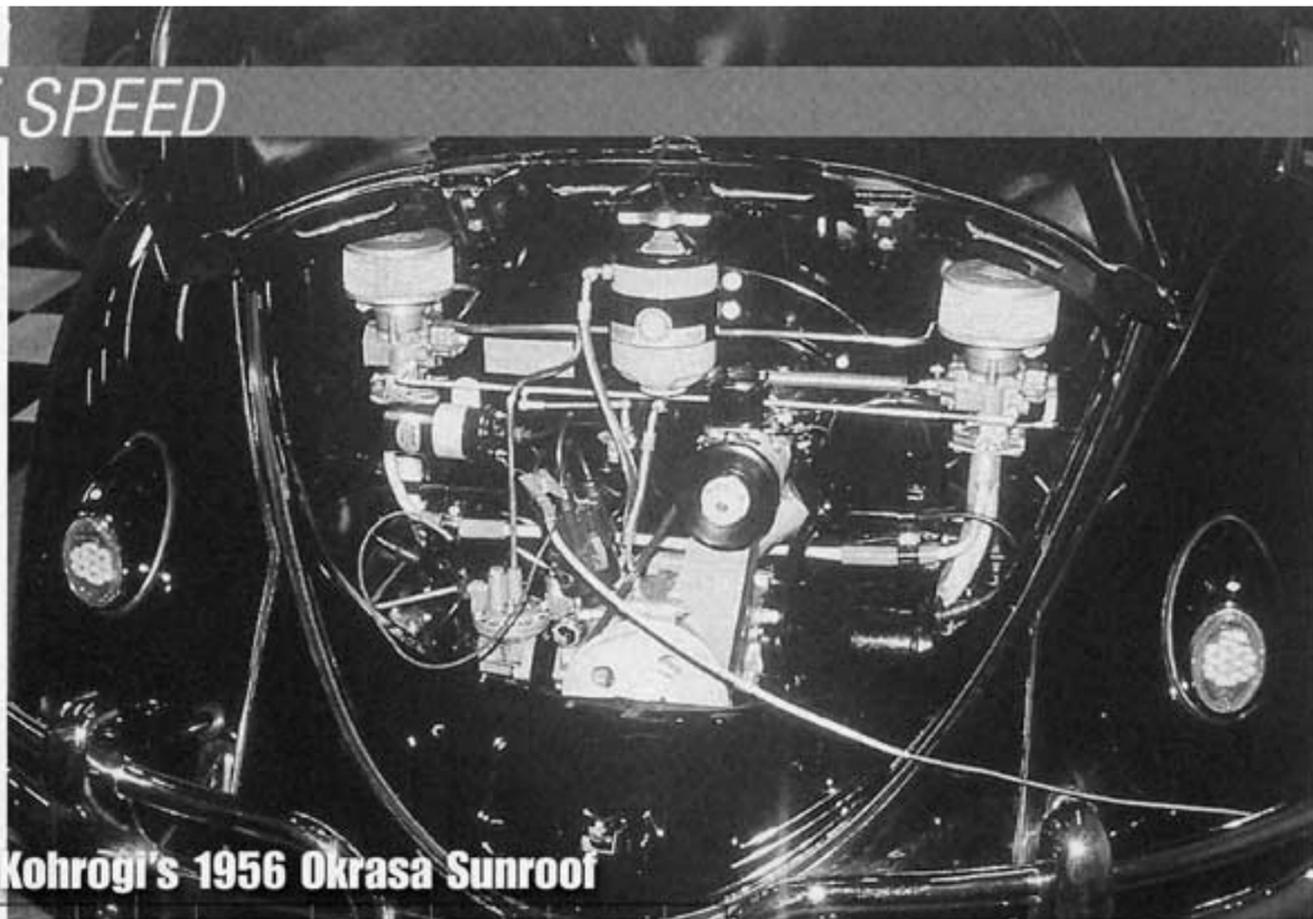
In 1951, Haddon Judson, owner of a small engineering company in Conshohocken, Penn., developed a sliding vane supercharger for a Flathead Ford and then adapted it to the MG TD sports car. With the increased popularity of the Beetle in the United States, a version was produced to fit on the small engine, and soon Judson was forced to move to a new location to handle the demand. Over the years, new models were added until the product line included superchargers for Austin-Healey Sprite, Corvair, Mercedes 190SL, MG TD, TF and MGA, Renault Dauphine, Triumph TR3 and 4, Volvo and two versions for Volkswagen. The first version was for the 30- and 34-hp engines, while the second, introduced in August 1960, was for the 34- and 40-hp engines. Except for an aluminum air scoop that fits on the Karmann Ghia deck lid, the two packages fit the entire VW range until 1967. As a useful bonus of power, the Judson must not be considered as a high performance bolt-on, but rather as a vintage addition to any aircooled Volkswagen.



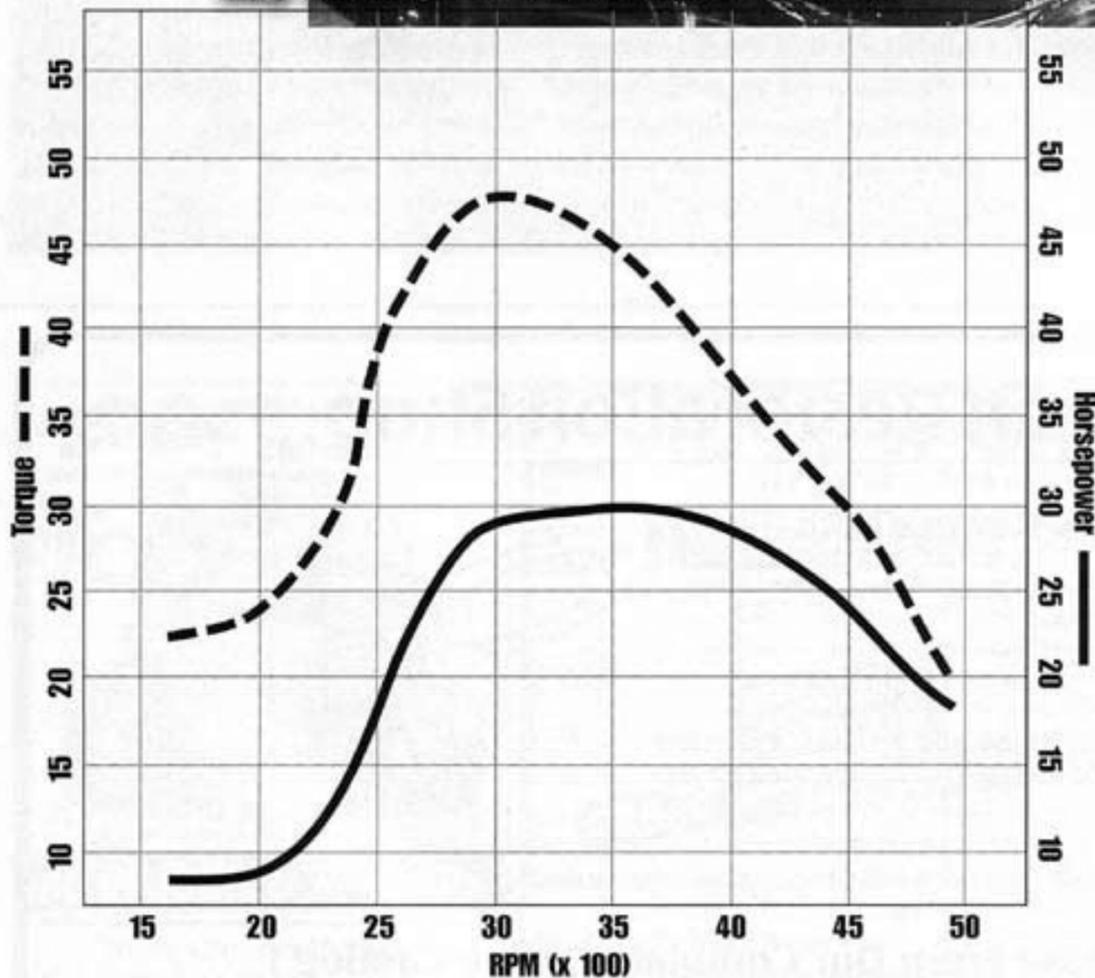
VINTAGE SPEED

The Battle of the Mouse Motors

OK, now for the final test, Roy's Okrasa-equipped 1956 Sunroof.



Roy Kohrógi's 1956 Okrasa Sunroof



As you can see, the Okrasa performed almost as well as the Judson-equipped car, to the tune on 30.7 hp at 3600rpm, and 48.2lb-ft of torque at 3100rpm. So, the two are within six-tenths of a horsepower of each other and they can both tear my stocker apart.



Special thanks go out to Roy and Acey Kohrógi, for allowing us to push their beautiful Vintage Volkswagens to the limit during this dyno session, and to Joe Ruiz for helping out with all the preparation of the cars. Also, thanks to Chad Vogeles and Barry White at Barry White's Street Rod Repair Shop for not laughing too hard at the phenomenal figures we achieved. 📷

SOURCE

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Placentia, CA, 92870
(714) 927-7220

Joe Ruiz
(rebuilt Judson and Okrasa engines for sale)
(714) 491-7574
mrokasa@earthlink.net

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