

Just a note about this Test Report. You'll find the performance figures shown in the box at the top right of the page are probably the poorest for any of the period road test to be found in our archive. You don't have to read far into the report before you see the reason for this...the fact that they have used a factory fresh VW with just 68 miles on the clock at the start of the test. They make more of the fact that the Judson is well run-in (which is not necessary) rather than the car not being run-in (which is necessary). The Judson Company always said; "We do not recommend supercharging a Volkswagen engine with less than 3000 miles of service." The reason for this is that the supercharged car always runs hotter than the normally aspirated causing the already tight engine components to expand more.

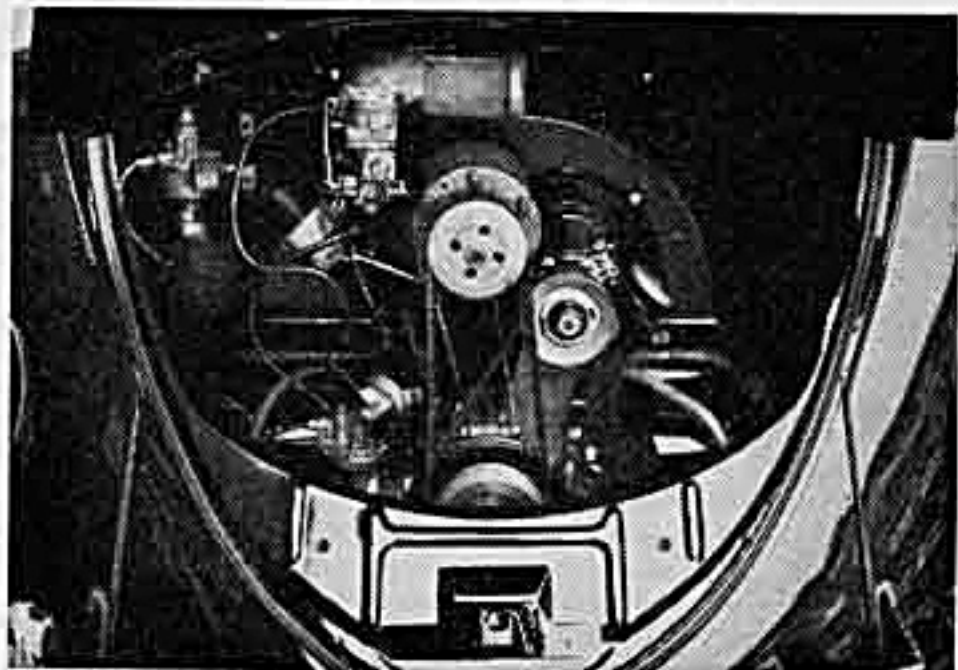
## JUDSON-BLOWN VW

THE article "Hot VWs" published in MOTOR SPORT last March aroused widespread interest, and we were asked by the Service Garages of Colchester to test a Volkswagen supercharged by Judson. Accordingly we have been driving a smart black 1959 sliding-roof saloon, standard except for an excellent Philips radio, rim embellishers, wing mirrors, twin Lucas 4LR yellow spot-lamps, plastic seat covers and G.B. letters, and the Judson installation. The car was shod with Continental "Schlauchlos" tubeless tyres and the Judson blower had done 8,000 miles on another VW before being fitted to this car at 68 miles. As received for test purposes the mileage was some 1,100 miles, the supercharger having, therefore, run more than 9,000 miles.

The Judson is a rotary vane-type positive displacement compressor made by the Judson Research & Mfg. Co., of Conshohocken, Penna. As applied to the VW it sits directly north of the engine, the installation very neat and compact. The drive is by dual V-belts from the crankshaft, the blower running at 1.3 times engine speed. The normal Solex carburetter is retained, with different jet, a special gauze air cleaner is fitted at right angles to the air intake and lubrication is effected automatically by suction from a glass bottle mounted on the left of the supercharger and containing engine oil—in the case of the test car Shell X-100. The Judson compressor measures 5½ in. by 9 in., weighs 17 lb. and blows at 6 lb./sq. in. Its noise-level in decibels is claimed to be the same as that of a VW engine running unblown, namely 55, and an increase in horsepower of 21 is claimed, or 57 b.h.p. from an otherwise standard VW engine. Rear-wheel h.p. of 42, an increase of 18, or 23 at 2,000 r.p.m. (an improvement of 9 h.p.) is amongst the maker's claims.

The most outstanding feature of this Judson supercharger installation is the almost complete silence in which it operates—it endows the somewhat staid VW with useful extra acceleration and speed without extra noise. Indeed, even with the windows and roof open it is virtually impossible to tell that a blower is fitted. The choke is retained for starting and no disadvantages crop up from applying the Judson, the only trouble experienced being that the carburetter air-cleaner repeatedly fell off, so that eventually we ran without it, for fear that the lid would foul the belt drives.

Like almost all VWs, this one had a decidedly optimistic speedometer, but, allowing for this, the genuine maxima in the gears are: first, 23 m.p.h.; second, 47 m.p.h.; third, 69 m.p.h. (readings of 25, 50 and 74 m.p.h., respectively). In fact, such maxima are not any aid to acceleration, changes being made at indicated speeds of approximately 20, 42 and 65 m.p.h., respectively. In top gear an indicated 75 m.p.h. comes up easily and a mile of clear road serves to bring the needle to 80. The engine is as docile as the standard unit, pulling away without complaint from an indicated 25 in second and from an indicated 30 m.p.h. in top gear. Using good, but not 100-octane petrol, there is no pinking or running-on. A faint trace of



THE JUDSON SUPERCHARGER INSTALLATION is accommodated very neatly on the VW engine and it effectively livens up the performance of the car with practically no increase in noise-level, although it does increase the consumption of fuel. Note the oil container on the left and the special air filter above the carburetter.

### ACCELERATION TABLE

(Speedometer corrected for optimism.)

	Normal 1957 VW	Rally Equipment 2-carb. 1958 VW	M.A.G.-s/c 1958 VW	Judson-s/c 1959 VW
0-50 m.p.h.	20.0 sec.	16.0 sec. (16.7 sec.)	15.7 sec. (15.8 sec.)	16.3 sec. (16.8 sec.)
0-60 m.p.h.	33.1 sec.	24.4 sec. (25.1 sec.)	21.0 sec. (21.1 sec.)	26.3 sec. (26.4 sec.)
s.s. ¼-mile	23.7 sec. (23.7 sec.)	22.8 sec. (23.0 sec.)	21.7 sec. (21.7 sec.)	22.0 sec. (22.1 sec.)

(Figures in parentheses are mean of runs in both directions.)

clutch slip was noticeable when accelerating hard.

Naturally, performance has to be paid for, and as the extra acceleration is very usable for passing slower cars and working up quickly to a genuine 65-m.p.h. cruising speed after a check, petrol consumption suffers. In normal running, not taking the engine to high speeds in the gears, but giving it its head on the straights, we recorded 31 m.p.g., including some starting and stopping. During performance testing the consumption rose to 26 m.p.g. It was not necessary to add oil to sump or blower supply during the 600 miles we drove the car.

Although we had a perfectly still, dry evening when we took performance figures, and were fortunate in securing the services of an R.A.C. time-keeper, we could not get near to the acceleration claims made in the Judson publicity folder. The VW was, admittedly, very new. It carried two persons and about 3½ gallons of fuel. The following are the figures recorded, allowing for speedometer error: 0 to 30 m.p.h. in 6.8 sec., 0 to 40 m.p.h. in 10.7 sec., 0 to 50 m.p.h. in 16.3 sec., 0 to 60 m.p.h. in 26.3 sec., and the s.s. ¼-mile in 22.0 sec. A speedometer 0-60 m.p.h. occupied 22.3 sec. On a journey the acceleration is more usable than these figures may suggest, and this blown VW winds its way through traffic and up hills very effectively.

In conclusion, the sun-roof was much appreciated and the radio was fully audible at 70 m.p.h. with the roof open, which disproves the legend that the VW is a noisy car. Once again, while driving a VW, I was rammed by a B.M.C. product—woman in Austin at Victoria, whose retort was, "Have I caused any damage? I am in a hurry to get to the station."—quite remarkable!

For those who do not have the March issue to hand, we append the VW performance figures published therein, with those for the Judson-blown car added. The Judson installation costs £80 and the agents are The Service Garages, 83-85, East Hill, Colchester, Essex

### MINIATURES NEWS

The flow of new motor-car miniatures is steady and continuous and collectors who like to be up-to-date must now possess a large number of these fascinating little models. Perhaps the best way of displaying them is to obtain a tall glass-fronted cupboard with shelves, dividing sections of cars of different nationalities, with appropriate back-grounds painted on card or modelled. However, model roadways and race tracks may be preferred by avid model makers.

This time full marks go to Meccano Ltd. for introducing a miniature "Dinky" edition of the sensational Triumph Herald in the very day that this new British car was announced. For those dealers and motorists who have not seen a Herald have only to visit their nearest toy-shop and purchase Dinky Toy No. 129 to know what the saloon looks like.

Meccano have also added a B.H.L. "Herring Eye" T.V. van to their Dinky range, with rotatable tower and a realistic aerial, which should be in the background of every motorizing layout, while the newest "Model of Yesterday" from Lesney is the coal-burner American 4-6-0 locomotive "Santa Fe," with fine smokestack and cow-catcher. To their military miniatures Lesney have added an Austin Mk. 2 radio truck and a Saladin 6-6 armoured car, to their usual high standard of detail work.

Corgi have introduced an attractive Mercedes-Benz 300SL hard-top (No. 204) and a forward-control Jeep FC-150 (No. 109), both at 1s. 6d., besides the Ford Thunderbird (No. 214) which we referred to last month. The T-bird miniature is obtainable in free-running or mechanical forms, priced, respectively, at 1s. 6d. and 4s. 9d.

With so many realistic replicas of real cars now on the market it must be increasingly difficult for "Dinky," "Corgi," "Lesney" and others to think of fresh subjects for models. Why not some gum cars, such as Fiat 509, N.A.A. Prinz, Lloyd, B.M.W. "bubble," etc. I—W. B.