SUPERCHARGED MG-TF

EVER since our very first issue of June 1947, the bulk of our correspondence has been from readers who want more performance from their cars. Many letters pose this question—"shall I hop-up the engine, or supercharge?"

Although recommendations may vary with the circumstances, we have always felt that a positive displacement supercharger is a much better all-around answer to the problem. A supercharger of this type increases power and torque at *all* speeds, whereas normal hop-up procedures or constant-ratio centrifugal superchargers have little or no effect at low engine speeds.

In the past we have road tested no less than five MG's, a 1953 TD, a 1953 Mk II, a 1952 TD, the same with Laystall-Lucas head, and a 1954 TF. Now we have completed a full scale road test on a Judson supercharged TF, we are more than "sold" on it.

Our experience began on a Saturday, when a brand new stock TF was loaned to us. We drove it for four hours and once again the pleasure of driving an honest sports car came back to us. Two days later we were given another TF to drive. This one had 1050 miles on it, and the Judson "blower". The car is completely transformed, with absolutely no objectionable features.

Driving gently, there is no indication that this is anything but a perfectly standard MG, with one important exception. For want of a better term we shall call it flexibility. The tiny 76 cu in. engine will pick up from 15 mph in high gear like a classic Packard 12. Second gear starts are accomplished without strain, something that is just not done with a stock TF. When you want performance, it's there, in ample abundance. Using a rev limit of 5500, we went from a standstill to a corrected 60 mph in 15.5 seconds, nearly 4 seconds quicker than we achieved with the stock TF last April. The Tapley readings, which are an accurate index of engine torque show an improvement of about 10% in this department. This shows why the flexibility is so much better and hill-climbing ability is likewise improved in the same proportion. We might also mention that the performance improvement in % gain will be greater on the TD models than on the TF because the TD has different axle and compression ratios which are more favorable for supercharging.

Only one timed run was made for top speed, in recognition of the fact that no MG is really ready for this sort of thing until it has covered at least 5000 miles. The recorded 87.0 mph is, however, significant, and with more miles, the car should certainly be capable of a solid 90 mph.

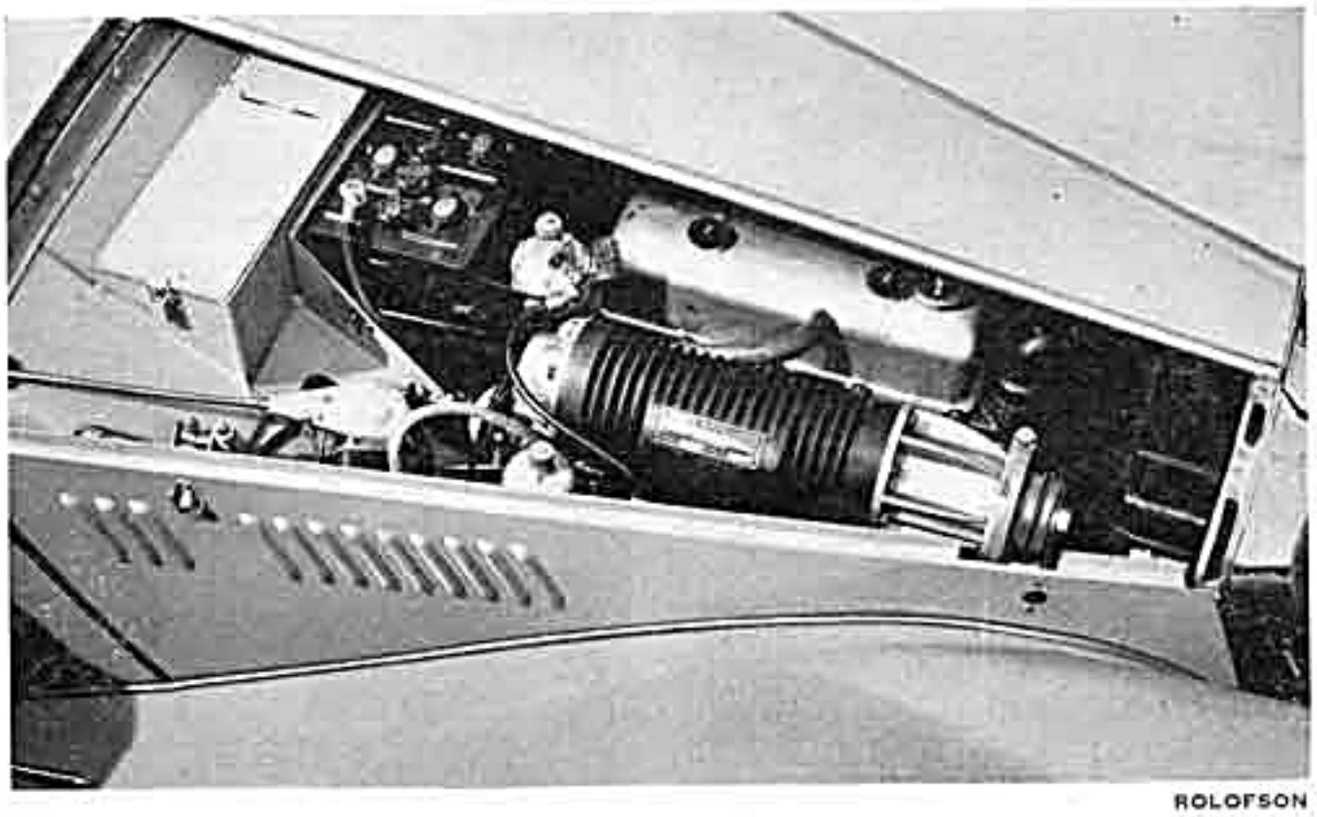
What does one lose with supercharging? Despite some very harsh treatment, the Judson MG displayed no vices. It did not knock, there was no sign of overheating. Once, after several wide open starts through the gears in quick succession there was just a hint that the clutch was slipping, but even competition driving would be less severe than these tests.

Fuel consumption? Driven gently the car achieves better mileage than stock. Driven somewhat briskly, the average driver can expect a 10% drop below stock. Driven very hard the consumption drops in exact proportion to the greater horsepower being used. The MG has never been a gasoline miser and shouldn't be purchased with that in mind.

Reliability? We see no reason why there should be any added maintenance costs, or shorter engine life, from using a moderate boost (6 psi). We examined a disassembled Judson unit and found the design to be simple, the workmanship excellent. The company has a good reputation and have made improvements from time to time which reflect a progressive attitude. Furthermore the Judson claim of 31% more peak bhp appears reasonable and conservative.

Since Lord Nuffield has not seen fit to answer our prayers (R & T for March, 1953, page 31), the supercharger is one of the best alternatives. ●

The Judson positive displacement supercharger is a close but neat fit on the MG-TF



ROLOFSON

ROAD & TRACK ROAD TEST No. F-16-54
Supercharged MG-TF

SPECIFICATIONS

Wheelbase	94.0 in.
Tread a	50.8 in.
Tire size	5.50-15
Curb weight	2050 lbs.
Test weight	2350 lbs.
Engine	4 cyl. ohv.
Bore & stroke	2.62..x..3.54
Displacement	1250 cc
Horsepower (stock)	57.5 at 5500
Gear ratios (overall)	
4th	4.88
3rd	6.75
2nd	10.1
1st	17.1

PERFORMANCE

Top speed	87 mph
3rd (5750 rpm)	64 mph
2nd (5800 rpm)	43 mph
1st (5950 rpm)	26 mph
Mileage	18/25 mpg
Speedo error	7.6% fast

ACCELERATION

0-30 mph	5.0
0-40 mph	7.7
0-50 mph	11.2
0-60 mph	15.5
0-70 mph	22.4
Standing ¼ mile	19.5

TAPLEY READINGS

1st — 460 lbs/ton	at 25 mph
2nd — 360 lbs/ton	at 35 mph
3rd — 250 lbs/ton	at 42 mph
4th — 175 lbs/ton	at 48 mph
Total drag at 60 mph	121 lbs.