

# LOOKING ROUND THE SPEED SHOPS

## DONALD HEALEY MOTOR CO. LTD.

The Donald Healey Motor Co. Ltd., situated at The Cape, Warwick, can hardly be classed as a speed shop since they are the designers of a very successful range of cars commencing with the Healey saloons using Riley, Nash and other engines, the Healey Silverstone sports car and culminating in the Austin-Healey 100 series and more recently the Sprite.

Since the agreement with B.M.C. came into being very little actual construction has been undertaken except for prototypes and the works has been turned over to the modification of various Healey models. This tuning was started on the "100" series and converted the car into the "100M." It consisted of raised compression-ratio, high-lift camshaft, large S.U. carburettors, anti-roll bar, stiff shock absorbers and a louvered bonnet held in place by a leather strap. This gave the car 20 more brake horse power and put the maximum speed up to 110 m.p.h. A similar sort of policy has been carried out with modifications to the Sprite although they go much further.

Recently we went to Warwick with the staff Sprite to have the first part of the conversion carried out. These changes relate to the engine and suspension. A booklet is now available from B.M.C. (Part No. AKD.1021) which gives details of the five tuning stages recommended. Parts 1 and 2 consist of polishing of ports, and raising the compression-ratio and will boost the power to 47 b.h.p. from the standard 42.5 b.h.p. at 5,500 r.p.m. This stage is recommended to those who want a modest increase in power without having to dismantle the engine and the work can be carried out for £10. Stages 3 and 4 are for the man who wants a good deal more power and the car will have to go to Warwick for the necessary attention. A high-lift camshaft will be fitted (price £6) together with a new set of pistons giving a 9.3 to 1 compression-ratio (price £9 10s.). A stronger set of valve springs will be fitted (price 15s. 4d.) together with a modified distributor (price £5 10s.). The fitting charge for this work which includes the balancing of rotating parts is £24 5s. For stage 5 attention is paid to the exhaust system, a dual system being fitted in which cylinders one and four and two and three are paired together leading into a free-flow silencer which has twin tail pipes. The price for this system including fitting charges is £13. The standard twin S.U.s are retained although they are, of course, tuned in accordance with the increased power. Those owners who have experienced misfiring bothers as we have, will be able to take advantage of a small modification to the carburettors. The misfiring is caused through a high-frequency engine vibration which shakes the float needle from its seat. A different needle usually eliminates the trouble or failing this, harder engine mounting rubbers can be fitted which do away with the vibration to a great extent.

After having paid attention to the engine the suspension and braking departments merit some modifications, although this engine conversion is not as radical as some on the market, but it is comforting to know that the roadholding and braking are in keeping with the power released. The suspension can be stiffened by the fitting of stronger front coil springs whilst the existing dampers can be fitted with smaller valves to increase the bump rebound. In addition the front anti-roll bar which links the lower wishbones of the front suspension can be fitted.

Having made the car go fast in a straight line and round corners the next problem is to make it stop. This has been achieved by the use of disc brakes on the front wheels. The ones chosen are made by Girlings, having a diameter of 8½ inches, while 8-inch drum brakes are retained at the rear giving the advantage of an effective handbrake. Complementary to the disc brake conversion is the wire wheel conversion which gives greater strength, better cooling, and has a more pleasing appearance in most people's opinion. The cost of the complete disc brake and wire wheel modifications including fitting charges is £104 10s. Alternatively, the wire wheel conversion can be fitted whilst still retaining the existing drum brakes. This can be done for £63 8s.

This just about completes the mechanical mods. to the Sprite, apart from a range of differential assemblies with ratios ranging from 3.72 to 1 to 5.375 to 1. For the enthusiast mainly concerned with ordinary road work the ratio fitted as standard equipment is about the best compromise.

To convert the car into a Grand Tourer a very handsome hardtop is available together with a set of sliding sidescreens at a price of £46 10s. A pleasant wooden steering wheel can be fitted for £10.

There is an enormous range of accessories available from B.M.C. including a child's seat, fire extinguisher, high-frequency horns (very desirable), radio, luggage grid, map light, seat covers and in fact every conceivable extra a Sprite owner would need.

Since the modifications to our Sprite would take a couple of days and we had some other calls to make in the Coventry area, Mr. Price the Service Director kindly lent us another Sprite which was in itself a very interesting car. It was the car driven by Tommy Wisdom and Bernard Cahier into 18th place in this year's Targa Florio, out of 48 starters taking over 13 hours for the 1,000 kilometres. Naturally it had the complete conversion as detailed above together with a few more speed-making extras. The engine was not considerably tuned, the compression-ratio being kept down in case poor quality petrol had to be consumed while two larger S.U.s were fitted, together with the twin exhaust system. The heater was removed for the sake of lightness and a spare coil fitted to the bulkhead. The mechanical fuel pump had been removed and a blanking plate fitted and replaced by an electric pump to cope with the increased rev. capacity of the engine. In the cockpit most of the trim has been removed and some foam rubber stuck to the cockpit sides and engine compartment so that the driver can rest his legs. The handbrake has been converted to the fly-off type which is, of course, more suitable for racing. The rev.-counter had the orange and red sections a little further round the dial with the orange section from 6,000 to 6,500 r.p.m., and the red section from 6,500 to 7,000 r.p.m.

For two days we had a lot of pleasure from this little "bomb." An apt term since the exhaust sounded like an explosion at certain periods in the rev. range. Nevertheless this Sprite displayed astonishingly fine acceleration and on the Coventry-Birmingham dual-carriageway achieved an indicated 95 m.p.h. with the rev.-counter needle only just entering the orange band. With a reasonable run an indicated 100 m.p.h. would almost certainly have been possible. The Advertisement Manager, who accompanied the writer unkindly referred to the Sprite as a "rat trap" but graciously admitted that it was a very fast rat trap—but then he is at the age when one does not appreciate sports cars, especially as he had some difficulty in folding his large frame into the passenger's seat.

For all that, we regretfully handed this interesting car back to Mr. Price and collected our own Sprite with instructions not to exceed 3,000 r.p.m. for 500 miles. In spite of this we managed to average 31 m.p.h. for two hours on almost deserted but soaking wet stretches of the A 41. Naturally, we cannot give any indication of the performance potential to be expected from our car but if the fruity exhaust is anything to go by we shall not be humbled by Consuls and the like any more.—M. L. T.

## SUPER ACCESSORIES

A difficulty facing most "Special" builders is how to get round to all the suppliers so that they can judge the relative quality of various products. Realising this some three years ago Mr. L. R. Montgomery started up his business at Southlands Road in Bromley, Kent. Here displayed for all to see are the products of most of the major manufacturers in the Austin and Ford "Special" field. Perhaps the most difficult item to choose is a bodyshell and at Super Accessories at the time of our visit were examples of no less than six different shells. These were Rochdale, Falcon Mark II and III, Auto Bodies Mark I and II, Markham-Peasey "Sabre," Monkspath "Shirley" and the very attractive new A.K.S. The latest drop-head coupé version of the Rochdale body was on view and the saloon version of the A.K.S. shell is expected shortly. For the Austin "Special" builder the popular Hamblin Cadet shell is available or for those who prefer an aluminium body the "Super" is available in 20 gauge aluminium on an ash frame for only £25.

On racks all round the walls can be seen a comprehensive display of Austin and Ford speed and suspension equipment. Thus the enthusiast can compare the merits of, say, the L.M.B. Ford i.f.s. system with the new Bowden i.f.s. and after having decided, make his purchase on the spot. A full range of Aquaplane speed equipment is carried and is attractively displayed and priced on wall displays. A comprehensive display of Austin Seven speed equipment is also on show from the "Supaloy" cylinder head at £5 5s., to a tappet adjusting screw at 6d. Mr. Montgomery also carries a large stock of ordinary replacement Austin and Ford spares and operates an over-the-counter service for callers (he is open until

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