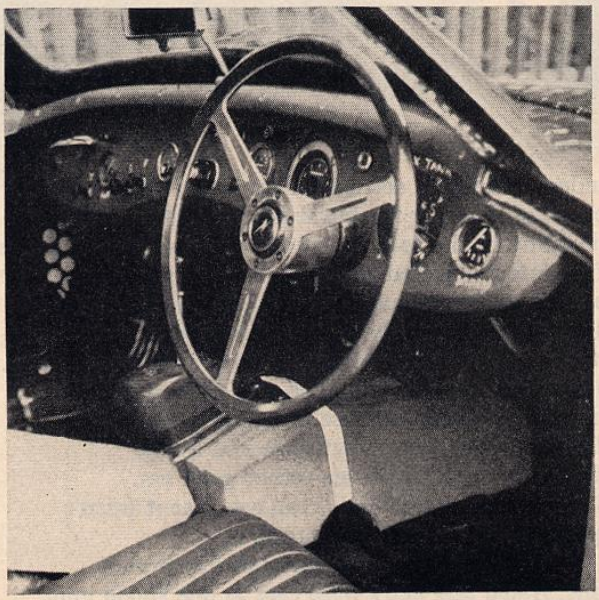
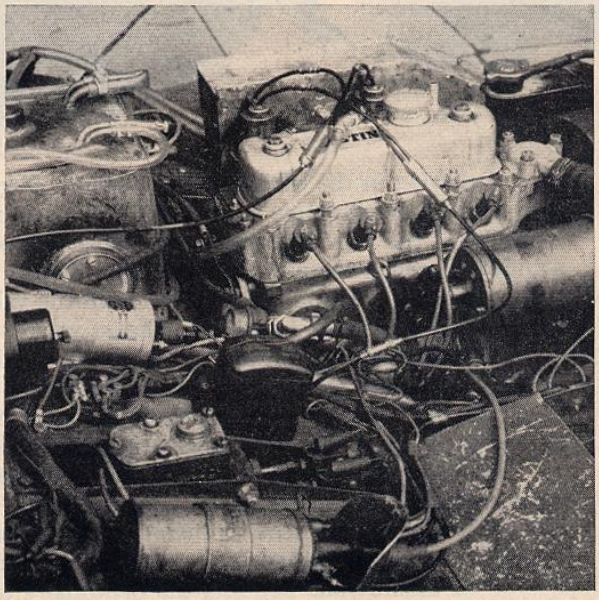
Speedwell GT Sprite



The cockpit of the Speedwell GT Sprite has a let's-get-down-to-business aspect with its wood-rimmed wheel, additional dials and switches on dash.



Wiring and tubing writhes around the 70 bhp Sprite engine shown here with Amal carburetors, cold air box, two coils. Note spare fuel tank.

► Small-capacity engines and congested roads have been responsible for the establishment of a remarkable number of hop-up shops in the British Isles, one of the most successful being Speedwell Performance Conversions Ltd. Starting life three years ago with the development of modest engine and suspension conversions for BMC A-series cars, Speedwell has now expanded into the "Abarth" class by producing a special-bodied, 70-bhp version of the Austin-Healey Sprite which is now invincible in British 1000 cc races and was recently timed by the Belgian RAC at 110.9 mph (SCI, August, 1960).

Like Abarth, Speedwell picks everyday, "bread-and-butter" cars for its transformations, turning what can only be described as rather ordinary machines into extremely individual, high-performance vehicles for very reasonable cost.

In the case of the GT Sprite, several stages of tune are available and a variety of optional extras can be added, according to the use to which the car is to be put—racing, rallying or road transportation. Externally the car bears more resemblance to a Lotus Elite than a Sprite, not surprisingly, since the Speedwell front body section and permanent hardtop were designed by Frank Costin, for some years Lotus aerodynamics consultant. The aluminum hood incorporates standard headlights, parking lights, and turn indicators but is hinged at the front and can be opened or closed without any of the physical exertion involved on a standard Sprite. The hardtop features a compound-curved windshield, a wraparound rear window and removable side-screens, use of the standard doors prohibiting the fitting of wind-up windows without a dramatic price increase. The rear deck is standard and provides the same roomy but rather inaccessible trunk as a normal Sprite.

Getting in and out of this coupe is like getting in and out of a normal Sprite with the soft-top up: tolerably inconvenient. Once inside, however, there's adequate room and once under way few enthusiasts would give another thought to the subject. The car tested, which is raced almost every week-end and also used as a mobile test-bed, hardly comes up to concours standards as far as interior trim is concerned, but then the two just don't go together. Nor is weight reduction in the interest of performance compatible with padding and sound damping, so conversation becomes almost impossible over 80 mph. However, production conversions intended for touring have carpets and ashtrays and are if anything quieter than standard Sprites, and they still go almost as well as VP 7.

One subject on which the Speedwell bodywork defies criticism is rigidity. There are no rattles from hood or top on VP 7, even though the former is secured only by two spring catches—one at either side—nor is the top prone to the drumming experienced with some fiberglass conversions. There are occasional thuds at the rear, probably from the battery, mounted in the trunk for best weight distribution, but otherwise the car feels taut and tough—as a racing machine should.

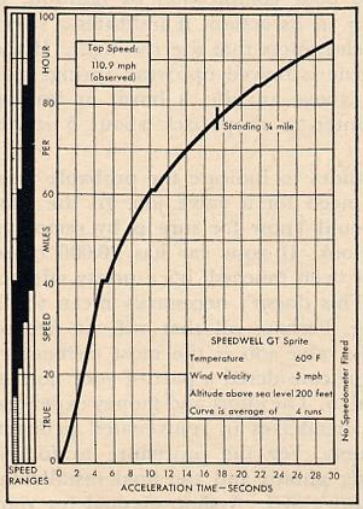
From the accompanying graph the fact that the Speedwell Sprite goes considerably better than a standard one can be detected easily. What might cause more concern is the car's ability to stop, or to corner at the elevated speeds of which it's capable. In the braking department surprisingly little has been done—nothing more than the fitting of Ferodo anti-fade linings, in fact. With such linings the hard pedal feel does little to promote confidence, except that the brakes pull the car up fair and square time and time again. Otherwise it would never have recorded the (*Continued on page 83*)

ROAD TEST

SPEEDWELL GT SPRITE

Price as tested: Approx. $2600, POE New York

Manufacturer: Speedwell Performance Conversions Ltd.
763 Finchley Road
London N.W. 11, England



ENGINE:

Displacement	59.8 cu in, 978 cc
Dimensions	Four cyl, 2.52 x 3.00 in
Compression Ratio	10.5 to one
Power (SAE)	70 bhp @ 6800 rpm
Torque	60 lb-ft @ 5000 rpm
Usable rpm Range	2600-7000 rpm
Piston Speed ÷ $\sqrt{s/b}$ @ rated power	3120 ft/min
Fuel Recommended	Super Premium
Mileage	25-30 mpg
Range	175-210 miles

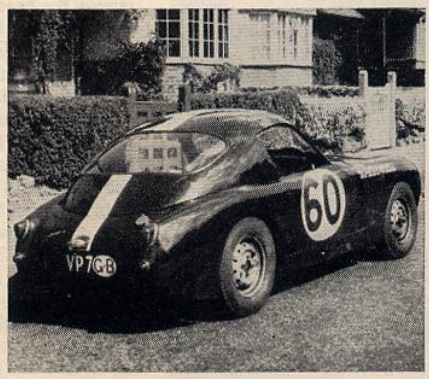
CHASSIS:

Wheelbase	80 in
Tread, F, R	45¾, 44¾ in
Length	142 in
Suspension: F, ind, wishbone and coil, anti-roll bar. R, rigid axle, quarter elliptic leaves, radius arms.	
Turns to Full Lock	1⅛
Tire Size	5.25 x 13
Swept Braking Area	110 sq in
Curb Weight (full tank)	1340 lbs
Percentage on Driving Wheels	52%
Test Weight	1676 lbs

DRIVE CHAIN:

Gear	Synchro?	Ratio	Step	Overall	Mph per 1000 rpm
Rev	No	3.30		15.03	4.5
1st	No	2.57	53%	11.69	5.8
2nd	Yes	1.68	36%	7.65	8.8
3rd	Yes	1.23	23%	5.61	12.0
4th	Yes	1.00		4.55	14.9

Final drive ratios available: 3.73, 3.89, 4.22, 4.55, 4.875, 5.125, 5.375



SPEEDWELL GT SPRITE

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enviable list of racing successes it has to its credit—with class lap records to prove that it's not just winning on reliability. Disc brakes are available, and have been fitted on several customers' cars, and conversions to 8-inch front drums are also offered. Yet the brakes of VP 7 seem completely adequate.

Suspension is a subject which has received attention from Speedwell ever since the company was formed, and on the GT Sprite the chief modification is the fitting of a front anti-roll bar, coupled to the lower wishbones, which endows the car with mild understeer. Speedwell also fits harder valving in the shock absorbers, thus cutting down the fore-and-aft pitching which is characteristic of all BMC cars on certain types of road surface. The excellent and standard rack-and-pinion steering gives a feeling of great controllability in corners, and on the straight there's little tendency to wander despite the short wheelbase.

The Speedwell Sprite, then, is well equipped to deal with the extra power of its much-modified engine. As tested, VP 7 was fitted with a unit tuned to what might be termed Formula Junior specification (Speedwell calls it "Clubman 70") with virtually open exhausts and a 1500 rpm idle. Yet for all this it proved to be incredibly smooth—the product of thorough bottom-end balancing—and completely free of temperament as long as treated reasonably in heavy traffic. This involved keeping the revs above 2000 and running normally at 3000 and upwards, but little difficulty was experienced in doing this, thanks partly to the beautifully quick, light gear shift.

The engine really comes into its own at about 4000 rpm, as the special cam begins to make its presence felt, and runs up without hesitation to the normal limit of 7000 rpm in all the gears. Here it should be explained that in the high-speed runs carried out in Belgium the engine was taken up to 7400 rpm in top gear, since there hadn't been time to change the axle ratio. That it withstood such treatment, and was then driven back to England and raced successfully at Goodwood, says a lot for the way it was put together.

Externally, the chief evidence of Speedwell treatment is a pair of Amal carburetors on special manifolds. Inside, the ports and combustion chambers have been re-shaped, special valves (oversize intakes) and springs have been fitted and compression has been increased by the use of flat-top pistons. The valve gear has been extensively modified to make the best use of the firm's CS5 camshaft, and crankshaft, connecting rods and pistons have been carefully balanced. As might be expected, all this costs money. It involves no major departures from standard—as would bar the car from international racing events—but results in an improvement of more than 70 percent in power output. All this, in conjunction with stable handling and braking, makes the Speedwell GT Sprite a very attractive proposition.

—David Phipps