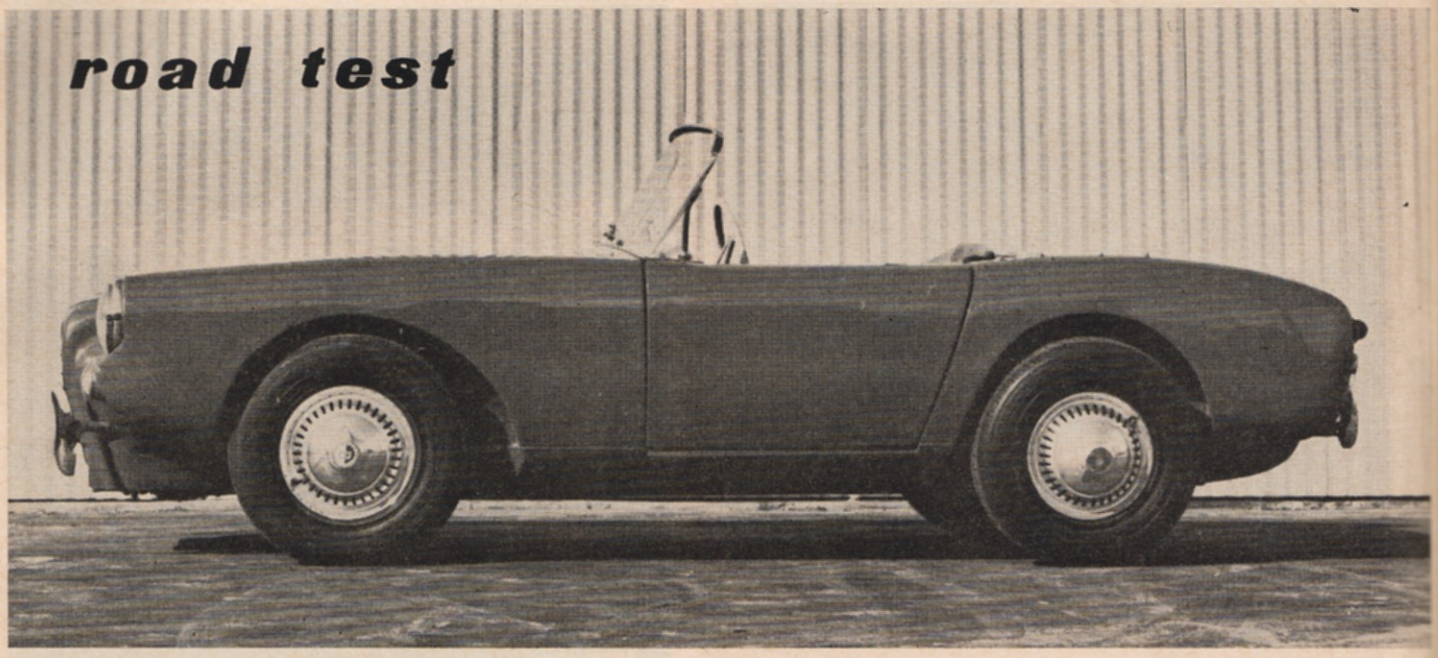


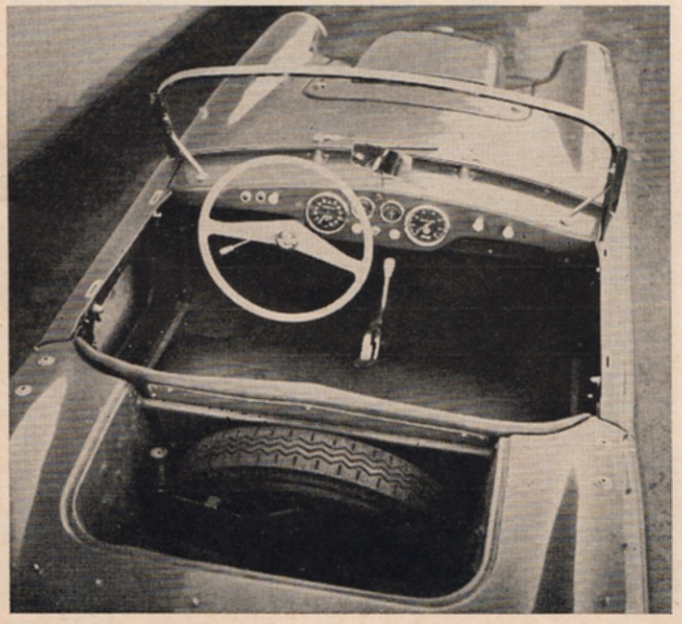
BERKELEY B-95

You're not going to send the kid up in a crate like that!

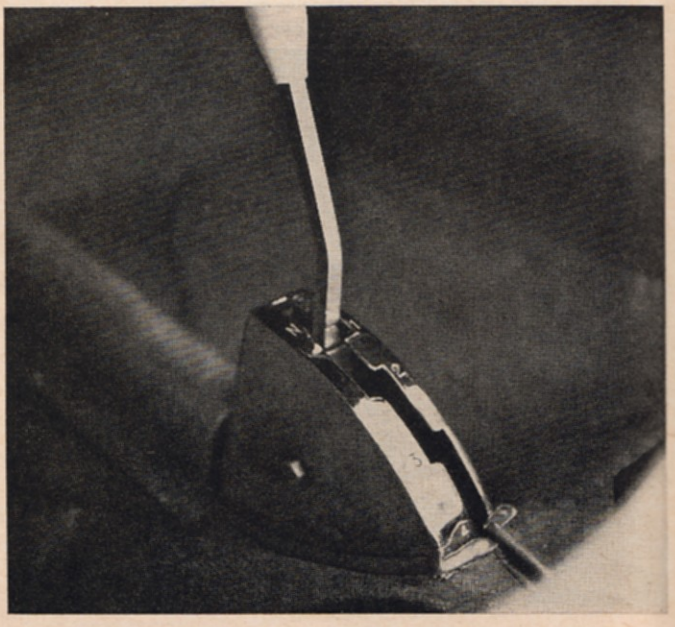
ONE OF THE FUNDAMENTAL TRUTHS that all sports car enthusiasts come to understand is that a car does not have to be terribly fast to be very interesting. In fact, most of us soon come to regard sheer speed as a secondary attribute, the qualities of handling and general sporting flavor being relatively more important. The subject of this test drives that point home very effectively, for in the Berkeley B-95 very little actual speed seems like an awesome amount.

Two years ago, when we did a test of the first Berkeley sports car, everyone commented that if the 18.2-bhp 2-cylinder, 2-stroke engine were replaced with something more powerful, the car would be a real tiger. The idea apparently intrigued the makers as much as it did us, for

The coziest of cockpits.



The progressive-shift quadrant.



the model B-95 is propelled by a monstrous (compared with the total size of the car) 700-cc Enfield 2-cylinder, 4-stroke motorcycle engine. This unit, in the B-95, has a mild 40 bhp, but is also available with minor modifications that yield 10 bhp more. The Enfield engine is an impressive thing—all aluminum alloy and very business-like—and has really thunderous torque at low speed. Also, in spite of the long stroke and pushrod-operated valves, it will turn up to 6000 or more revolutions. In this connection, we would like to mention that it runs out of power well below the point of valve crash, which has the effect of discouraging the frivolous from using revolutions to the detriment of the engine.

The drive from the engine is very "motorcycle" in layout, with a double-row chain to the clutch and transmission, from which yet another chain carries the drive to the chassis-mounted final drive sprocket. The hub of the final drive sprocket contains the differential gears and from these originate the shafts that drive the front wheels. The second stage of the chain drive is exposed to the elements, but is lubricated by oil mist from an engine breather pipe.

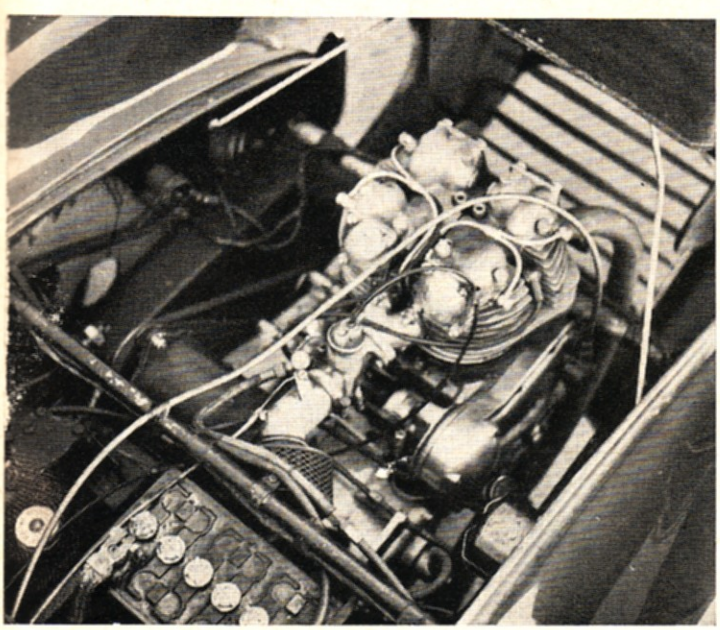
The chassis is in unit with the body and is extremely unorthodox in its construction, being made entirely of fiberglass with a few aluminum or steel gussets at points where stresses are concentrated. All four wheels are independently suspended, on unequal length arms at the front and swing axles at the rear. The suspending medium is coil springs all around.

The body retains most of the contours from earlier models, but the various modifications needed to get the headlights up to a legal height and to enclose the tall, bulky engine have caused the appearance to suffer. In fact, the car is just a trifle grotesque from many angles. Even so, the quality of the finish is impressive in that there are none of the uneven surface ripples that have been such a problem to fiberglass fabricators.

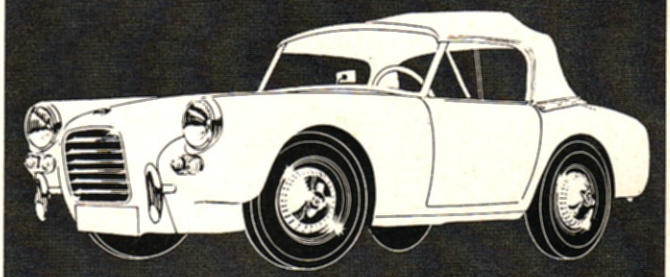
With such absolutely minimal overall dimensions, it is scarcely surprising that the interior of the car is not overly roomy. The members of our test crew were each six feet tall and proportionately broad, and with both of them in the car there was just barely enough surplus room for the test equipment. Actually, two average-size people in the car will not be really cramped—but they certainly will be friendly.

Instrumentation is very complete and positioned so

The engine overhangs the front wheels.



ROAD & TRACK ROAD TEST 249



BERKELEY B-95

SPECIFICATIONS

List price	$1795
Curb weight	915
Test weight	1290
distribution, %	60/40
Dimensions, length	123
width	50.0
height	46.0
Wheelbase	70.0
Tread, f and r	42.3
Tire size	5.20-12
Brake lining area	65.0
Steering, turns	2.5
turning circle, ft.	28.0
Engine type	2 cyl, ohv
Bore & stroke	2.76 x 3.54
Displacement, cu in.	42.2
cc	692
Compression ratio	7.25
Bhp @ rpm	40 @ 5500
equivalent mph	82.1
Torque, lb-ft	42.5 @ 4000
equivalent mph	59.8

PERFORMANCE

Top speed (4th), mph	82.5
best timed run	84.9
3rd (6550)	71
2nd (6550)	49
1st (6600)	31

FUEL CONSUMPTION

Normal range, mpg	35/50

ACCELERATION

0-30 mph, sec.	5.0
0-40 mph	8.0
0-50 mph	12.4
0-60 mph	17.2
0-70 mph	25.9
0-80 mph	38.5
0-90 mph	
0-100 mph	
Standing ¼ mile	20.5
speed at end, mph	65

GEAR RATIOS

O/d (n.a.), overall	
4th (1.00)	4.31
3rd (1.38)	5.95
2nd (2.00)	8.62
1st (3.18)	13.7

TAPLEY DATA

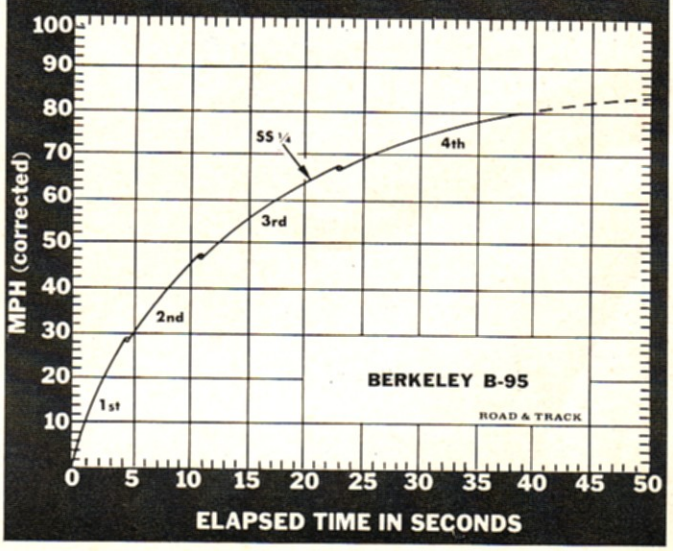
4th, lb/ton @ mph	180 @ 53
3rd	250 @ 44
2nd	390 @ 37
1st	510 @ 27
Total drag at 60 mph, lb	64

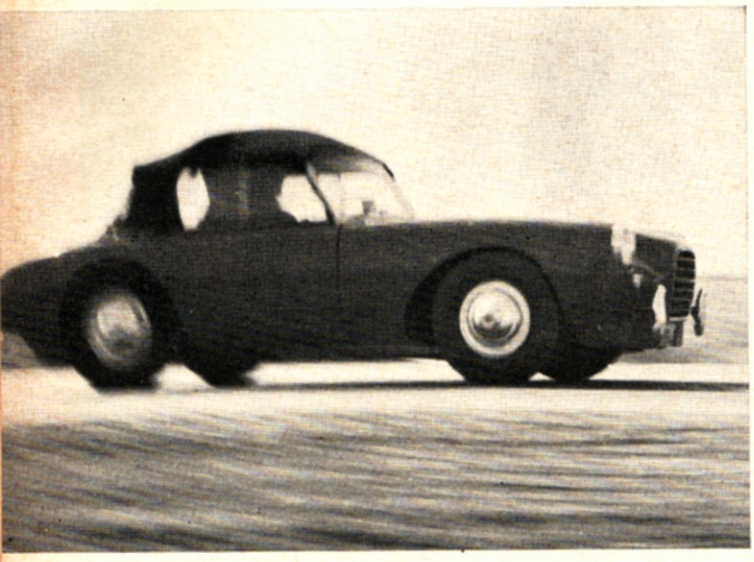
CALCULATED DATA

Lb/hp (test wt)	31
Cu ft/ton mile	77.8
Mph/1000 rpm (4th)	14.9
Engine revs/mile	4010
Piston travel, ft/mile	2366
Rpm @ 2500 ft/min	4240
equivalent mph	63.1
R&T wear index	95.0

SPEEDOMETER ERROR

30 mph	actual 27.7
40 mph	36.5
50 mph	45.5
60 mph	54.5
70 mph	64.0
80 mph	73.0
90 mph	
100 mph	





Really flying! The high speed (?) run.

that it can be read with a minimum of neck-craning—though in all truth it must be said that it would be almost impossible to place the instruments any place *but* near the driver. The controls are also well located, albeit grouped a bit closely, and the only complaint we have concerns the gearshift lever. As the gearbox is positioned ahead of the front wheels, there is a remote shift device—which consists of a long rod, connecting the transmission and the shift lever. The shift pattern is most peculiar, all positions being located progressively along a notched quadrant—not unlike the arrangement used by Harley-Davidson for many years. The gears are non-synchronized, but as the transmission runs at less than engine speed, extremely fast snap shifts can be made—just as with a motorcycle. Some practice is required before one becomes proficient at making fast shifts—either up or down—and we feel that it would have been better if the complete motorcycle-type gearchange had been used. Shifting would have then become a simple matter of tugging the lever back to change up, and pushing forward to change down—or vice versa.

Driving the Berkeley, especially "at speed," is an experience never to be forgotten. One sits less than 10 inches above the road surface and the bounding, choppy ride, combined with the booming exhaust note, lends a sporting air that we had thought irrevocably lost to the past. Although this car is entirely unlike any pre-war sports car, it nonetheless manages to *feel* just like one. The first big point of similarity is the manner in which the chassis appears to flex as the car flails down the road. It might be mentioned here that due to a certain "scale" effect, every little bump and ripple in a road surface takes on enormous proportions. The Berkeley doesn't ride badly, except over very bad roads, but on any uneven surfaces at near-maximum speeds it begins to feel very light—which it actually is. During our high-speed runs the car was quite stable—in spite of a brisk side-wind—but still felt as though it were just flitting from one bump to the crest of the next.

The overall performance of the B-95 was somewhat puzzling, as it proved to be slightly better in acceleration than we had anticipated—but not nearly so fast at the top end. According to the manufacturer, the Berkeley should be capable of nearly 100 mph, and our best run was some 15 mph short of that. However, our test car's engine was in rather ragged condition—due to 10,000 miles of use as a "demonstrator." We think that a B-95 in peak condition might go better—but we're not altogether sure that we would want to drive it *too* much faster. A prototype version of the 50 bhp Berkeley B-105 has actually been timed at speeds exceeding 100 mph, a feat which we suspect required considerable courage.

Taken as a whole, the Berkeley B-95 is not so much a *good* car as it is a *fun* car. Tearing around in such an absurd vehicle may not be dignified or practical, but it certainly is a delightful way to spend a sunny afternoon.

Actually, the best use for the car that occurs to us would be as a true sports/racing car. The B-95 could be a real terror in its competition class and would serve as a sporting runabout away from the race course. It is not the car for just everyone, particularly when driven with vigor, as it is stable only so long as the power is on. The Berkeley has a pronounced tendency to weave and dodge when one's foot is lifted suddenly from the throttle, which is a trifle unsettling. And, even worse, it is possible to almost lose control if the brakes are applied hard at high speeds. One would therefore be well advised to use discretion until complete familiarity with this machine is achieved. Still, for the person who appreciates a little character and spirit, even at the expense of practicality, the Berkeley B-95 is an intriguing automobile. Our entire staff turned out to drive the car and, even though most aware of its deficiencies, thoroughly enjoyed the experience.

This view gives scant evidence of the car's small size.

Air cooling—requires a lot of air.