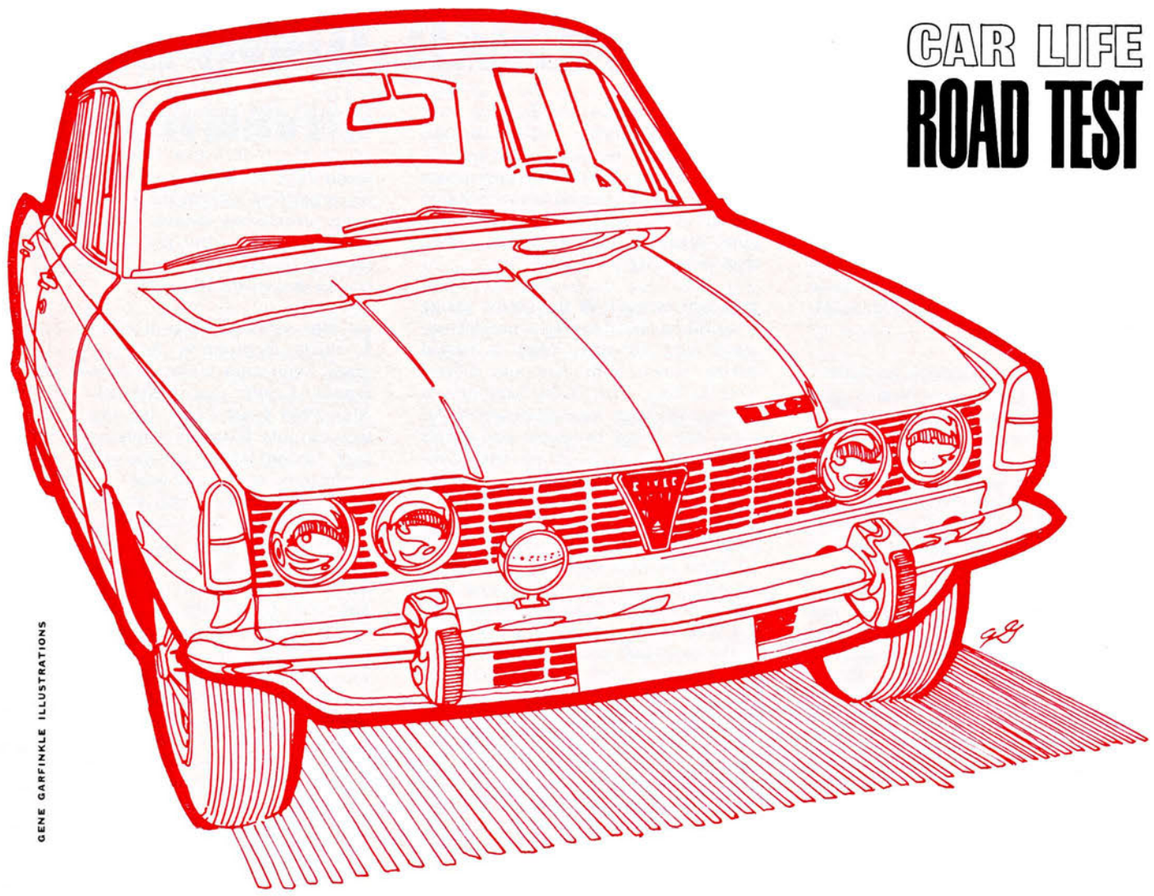


GENE GARFINKLE ILLUSTRATIONS

CAR LIFE
ROAD TEST

ROVER 2000 TC

The Rover Boys Invade the Colonies

SOME FIFTY years ago, Lord Baden-Powell, that archetype of British good guys, exported Boy Scouting from England to America. At the present time, the Rover Company Ltd. of Solihull, Warwickshire, England, is attempting much the same operation. In the light of Congressional criticism of the U.S. auto industry, the Rover Boys claim they are bringing a better (safer) way of (driving) life to these shores.

The safety advertising of Rover has been such that it is not at all difficult to imagine that as Rover 2000 TC sedans emerge from the Solihull plant, a Peter Sellers-like Briton administers this oath to the cars newly built for export to the U.S.:

"Ah, raise your right front wheel, please, and repeat after me . . . 'On my honor, I will do my duty to my American owner in my adopted land and to obey the Rover law of safety—to keep my passengers safe at all times, to keep myself physically safe, mechanically safe and economically safe.' "

That's an exceptionally large order for a small, 103-in. wheelbase, 4-door sedan of 120.8-cu. in. piston displacement to become a naturalized citizen in a strange country full of 120-in. wheelbase, 400-cu. in. aborigines. However, Rover advertising vigorously claims this car can fill that large order. Well, can it?

Short of live crash tests on freeways at rush hour, it is difficult to determine whether any car is truly safe, whether one component is safe or unsafe, whether one design feature is more safely engineered than another. *CAR LIFE*, of course, didn't conduct such crash tests, but did attempt to discover whether the Rover 2000 TC lives up to its safety billing, and whether the super-safe aspects of the car simply are "flack" bursts fired at American people whose fears on the safety of automobiles recently have been engendered or intensified by the hue and cry of full-scale Congressional inquiry. Advertising seems to say, "Rovers help elderly ladies to cross heavily trafficked streets."

It is only fair, then, to pinpoint whether or not the Rover 2000 TC is trustworthy, loyal, helpful, friendly, courteous, kind, obedient, cheerful, thrifty, brave, clean and safe.

Is the Rover 2000 TC trustworthy? That is difficult for *CL* to judge. This particular test car had been quite abused by previous drivers and had received no preventive maintenance. Thus it was that drive-line parts and an oil cooler return line came loose, and the throttle stuck once. Some prior turns of some wrenches and some lubrication might have made this particular Rover 2000 TC the trustworthy car its manufacturers designed it to be.

IS THE ROVER 2000 TC loyal? Yes, to those whose tastes run to British cars. The car even smells British. Its loyalty extends to those who previously have driven British-built 4-bangers of the Triumph, MG and Sunbeam school, who have experienced Jaguars and Austin-Healeys and who enjoy crisp, fully synchromeshed 4-speed gearboxes. The car is loyal to those who prefer the British idea of driver creature comforts—where the car is fitted to the occupants, rather than vice versa. To assist in making Americans loyal to their Rovers, the manufacturer offers three special paint colors blended in brightness to American tastes, a simulated wood-rimmed steering wheel (simulated of butyrate because real wood might splinter in certain crash situations), a racing mirror and a tachometer because Americans seem to desire these items; and optional, very un-British cast-aluminum wheels, which now are popular in the U.S. The Rover 2000 TC works very hard at being loyal to both sides at once.

Is the Rover 2000 TC friendly? Yes. Its soft, padded leather upholstery seems to slide onto the driver as would a snug, favorite jacket. However, the Rover's clutch, brake and throttle pedals seemed very unfriendly. Like so many lollipops, the pedals are suspended all in a line, all of a size, close together. For large-footed Americans, this is definitely unfriendly and, in some cases, unsafe and even scary. Clutch is like brake, like brake is like throttle, somewhat offset to the driver's left. Hence, in haste, it is all too easy to mistake the throttle for brake, or the reverse. When done, some unanticipated motoring ensues—as can be affirmed by one *CL* test driver. The position of the throttle pedal is such that it permits no rest for the driver's right leg. The Rover 2000 TC tries to be friendly—and succeeds in some respects.

IS THE ROVER 2000 TC courteous? Although its overall dimensions are modest, the car presents plenty of headroom for even the tallest occupants. Front bucket seat rake is infinitely adjustable from almost fully reclining to almost perpendicular to suit the particular tastes of the driver and front seat passenger. Front seat headrests and fore and aft seat travel also are adjustable for complete driving comfort for both the long and short of the human race. The rear compartment with contoured seating for two adults is spacious enough for extended touring. Three medium-sized children can be accommodated for shorter hauls. The car is courteous to all whom it encounters.

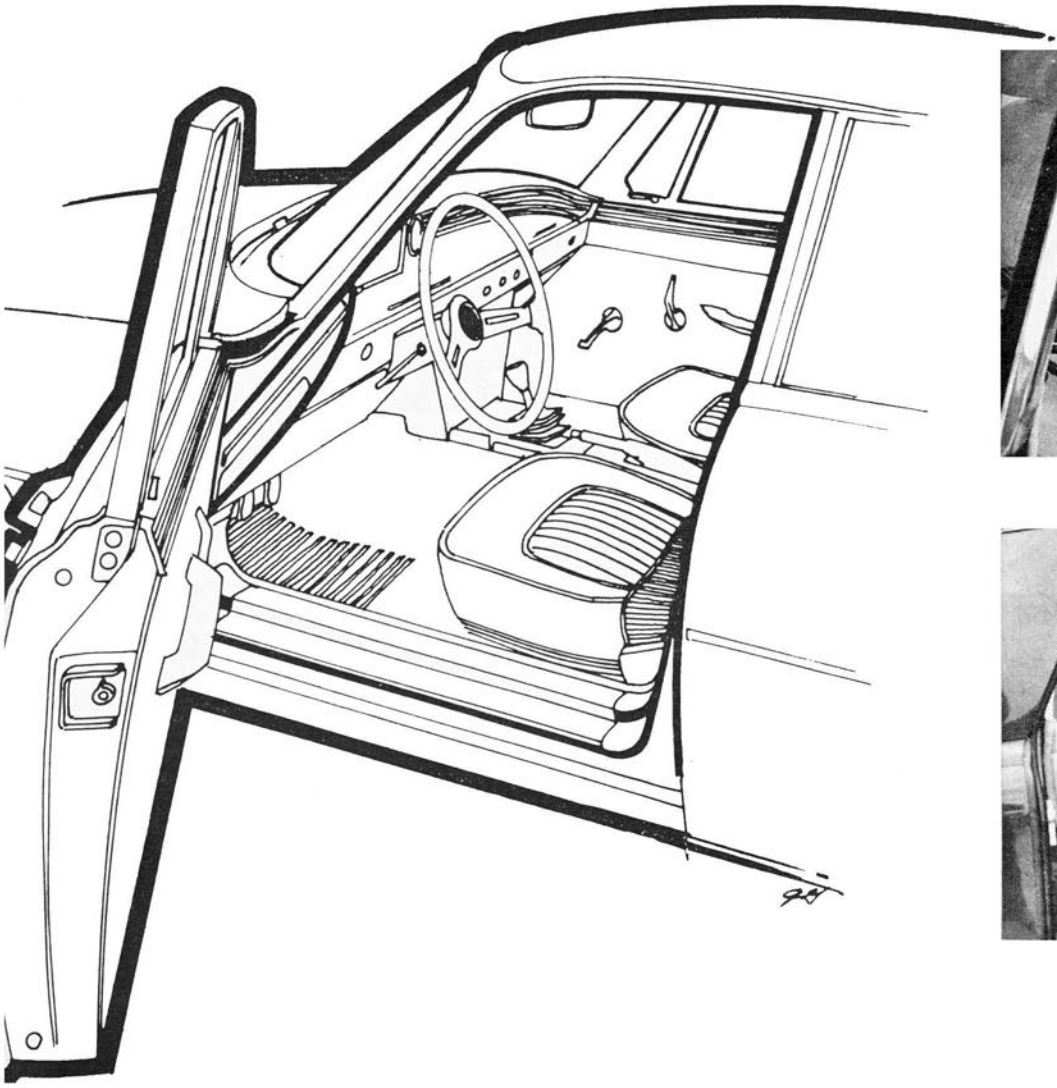
Is the Rover 2000 TC kind? Yes, its instrumentation particularly is kind to both automobile and driver. Warning lights report when the manual choke has been left on, when the engine oil pressure drops below a safe level and when the parking brake is on. These are important for the automobile. The driver learns his speed, total and trip mileage, coolant temperature, amount of fuel remaining and rpm from gauges. All save the circular tachometer, which is a bit to the right, are located in a horizontal block directly in front of the driver. Switches and knobs are shaped according to the direction they are to move. Recognition by feel is easy because no two switches of similar shape are located side by side.

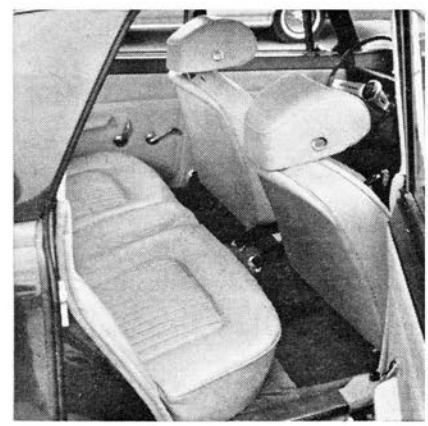
ANOTHER kindness displayed by the Rover was its luggage space, almost double that of some U.S. 2+2 cars, equal to some of the longer American wheelbase machines and certainly adequate for a range of chores from grocery parcel hauling to leather luggage type grand touring. The Rover 2000 TC will be very kind to its owner, his family and friends.

Is the Rover 2000 TC obedient? Obedience is probably the car's forte. It responds quickly to driver commands for braking, steering and acceleration. Controllability, despite the advertisement of many other things, is the car's safest feature.

Dunlop disc brakes are mounted outboard at the front and inboard at the rear. Servo-assisted with a 7-in. diaphragm-type vacuum booster, the 4-disc system brings the Rover 2000 TC to a rapid, straight-line halt. Pedal action is progressive, i.e., the harder the driver pushes, the more braking effect he gets. Overly heavy pedal pressure results in rear wheel lockup and immediate loss of braking efficiency. The Rover people could well install a proportioning mechanism between front and rear brakes—a recommendation also made frequently by *CL* testers for U.S.-built cars.

The Rover's steering is quick, precise and light. Though little steering effort is required, enough road shock is transmitted through the worm and roller steering mechanism to present a pleasant degree of "road feel," that ▶





ROVER

elusive quality often lacking in power-assisted systems. Touted by Rover as a safety feature is the fact that the tilt-adjustable steering wheel is mounted on a shaft that terminates just ahead of the main forward bulkhead/firewall and, says Rover, does not become a lethal spear in a collision.

Two liters, 2000 cc or 120.8 cu. in. —they're all the same with respect to the Rover 2000 TC's 4-cyl. engine. The low coefficient of valve train inertia inherent in the Rover engine's single overhead camshaft design, twin SU HD 8 carburetors (hence TC for twin carburetors), efficient gas swirl induced by bowl-in-piston combustion chambers, exhaust ports designed for maximum flow and dual header pipes are a few of the contributions to the engine's 6000 rpm capability. This 6000 rpm is on tap when required. The test Rover 2000 TC exceeded an indicated 115 mph and slightly bet-

4-speed box combined to produce brisk acceleration both for freeway on-ramp speed-matching safety to an effortless 75-mph cruise and an adequate hill-climbing ability.

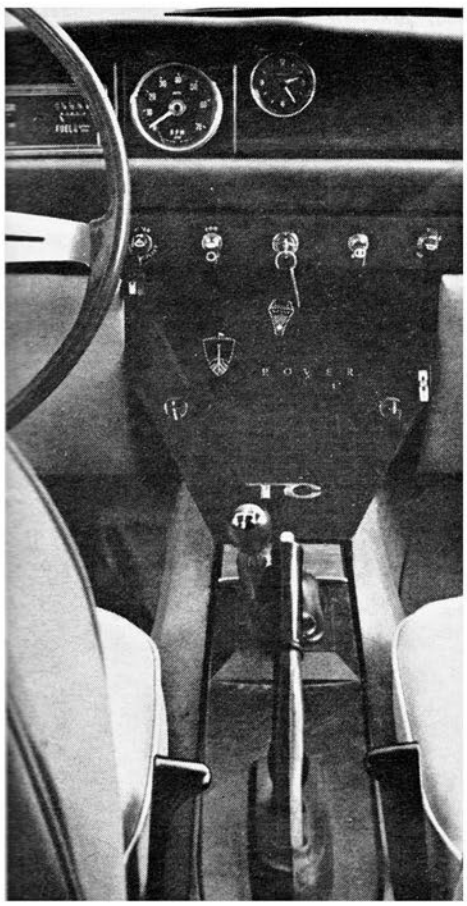
Brakes, steering, engine capability and transmission factors taken all together give the Rover 2000 TC a quality of controllability not often found in everyday automobiles. Controllability is the car's doing the job exactly when and exactly how the driver wishes it to be done. This controllability, in the hands of even an average driver, makes the Rover 2000 TC a reasonably safe car. This controllability in the hands of the skilled driver makes it a very safe automobile, indeed. But, with its superior controllability, up to a point, the Rover 2000 TC also has the potential to lure an incautious driver beyond his limits. Because it is extremely controllable, the Rover 2000 TC can be said to be extremely obedient.

IS THE ROVER 2000 TC cheerful? If briskness, *èlan* and excitement are cheering qualities, then the car is cheerful. It outsports many so-called sports cars. To take the Rover through

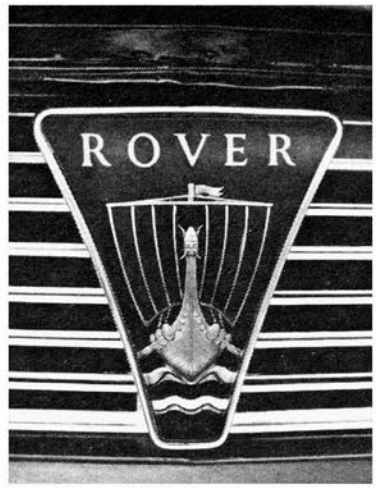
speed with a short-throw
ɔ third gear, then to second,
he delightful engine sounds

of brisk throttle response, is a very cheerful operation. The Pirelli Cinturato radial cord tires cling to the road surface like chewing gum to the underside of a theater seat. An enthusiast cannot stifle a spontaneous grin in the bend. Yes, the Rover 2000 TC is a very cheerful car.

Is the Rover 2000 TC thrifty? Economy is a point always discussed, often discarded, by prospective automobile buyers. If a driver does something unsafe that results in a dent in his safe car, he will find repairs economical. Aluminum and steel body panels, 19 in number, can be replaced quickly and cheaply. A front fender costs $32, plus bolt-on replacement labor. On long freeway runs of 200 to 300 miles at speeds of 65-75 mph, the car delivered 21.4 mpg. Overall, including the acceleration run series and the top speed test, the car still produced 21.3 miles to the gallon of fuel. As the price of the 2000 TC, as tested, approaches $4500, it can't be termed economical with regard to initial purchase cost. The buyer must consider those disc brakes, leather upholstery, the intangibles of handling. If he appreciates such things, he pays



SCOTT MALCOLM PHOTOS



the price. The 2000 TC costs a bundle, but it can be said to be thrifty by comparison to the 11-mpg American V-8s.

IS THE ROVER 2000 TC brave? In concept, the car is very brave. Unit body construction is of softer material ahead of and behind the passenger compartment. These sections, Rover people say, are designed to crumple under crash stress and thus absorb energy, preventing harmful forces from reaching occupants. This, of course, is one of the car's much advertised safety features.

The main body unit of the Rover 2000 TC is bravely unique. It is a hard-core, rigid steel cage. This inner cage is welded up from the floorpan, stiffened by transverse bulkheads forward and to the rear of the passenger compartment and the longitudinal driveshaft tunnel. Doorposts and quarter pillars provide sturdy roof support. To this base are fitted 62 machined bosses for attachment of body panels, suspension, and engine and drive-line assemblies. The car is assembled to a drivable state before the body panels are bolted on.

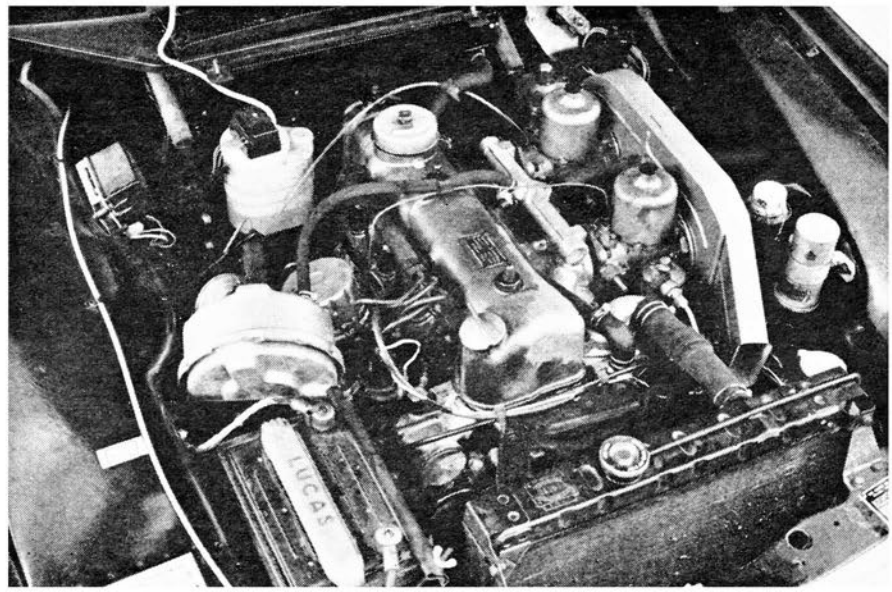
WHEEL SUSPENSION front and rear are brave departures for Americans—because in the colonies, the vertical coil spring forward and the live rear axle are the standards.

In the Rover 2000 TC, front coil springs are horizontally mounted to the forward bulkhead. Front wheel hub carriers are located by longitudinal upper and transverse lower A-arms connected by vertical struts. The lower arms are pivoted in the conventional manner.

The upper A-arms are pivoted laterally at the forward bulkhead. As upward wheel jounce occurs, the vertical struts transfer motion to the upper A-arms and thence to the horizontal spring through lever arm extensions. Motion is damped by compression of the horizontal springs and vertical tubular shock absorbers which are connected to the upper A-arms. Rover claims this front suspension system reduces unsprung weight and offers good anti-dive/anti-squat characteristics. The design also permits low profile ▶

height and a clean, forward sweeping fenderline.

The 2000 TC's rear suspension is a modified de Dion system. The differential housing is rigidly mounted to the unit body. Twin universally jointed axles extend from the housing to the drive wheels. Diamond shaped rear hub carriers are located at the lower points by trailing arms which are angled from pivot points approximately 2 ft. ahead of the differential housing. The upper hub carrier points are located by short leading arms, Watts links, pivoted to the rear and above the points. The rear wheels are kept parallel on deflection and are held perpendicular to the ground plane by a de Dion tube anchored at the rear of each hub carrier. Ordinarily, the de Dion suspension system employs telescopic half-shafts to the drive wheels; the Rover-modified de Dion system does not. Instead, the sliding coupling is in the dead tube. Thus, each rear hub follows the radius established by the non-telescoping half-shaft. Jounce is damped by vertical coil springs and telescopic shock absorbers mounted between the trailing arms and the body. The brave new designs in suspension account in great measure for the car's superior controllability. The 2000 TC's bravery challenges Detroit.



STRONG FOR a 120.8-cu. in. engine, the Rover's 4-cyl. powerplant gets some muscle and its TC designation from twin SU HD 8 carburetors.

Is the Rover 2000 TC clean? In comparison with billowy, buxom, high and hippy Rovers of past years, the car is positively lean and lithe. Lines are, indeed, clean and give the 2000 TC the forward-raked appearance of a sprinter ready to leap out of his starting chocks. Inside, things aren't quite so clean. Window cranks and door latch handles protrude. Air duct covers and control levers do likewise. The rear window vent pane latch lever

1966 ROVER
2000 TC 4-DOOR SEDAN

DIMENSIONS

Wheelbase, in.	103.4
Track, f/r, in.	53.4/52.5
Overall length, in.	178.5
width	66.0
height	54.8
Front seat hip room, in.	2 x 21.3
shoulder room	56.25
head room	34.5
pedal-seatback, max.	48.1
Rear seat hip room, in.	56.8
shoulder room	55.5
leg room	21.0
head room	33.0
Door opening width, in.	25.6/28.2
Floor to ground height, in.	7.1
Ground clearance, in.	5.3

PRICES

List, poe, Pacific Coast	$4198
Equipped as tested	4471

Options included: Aluminum wheels, headrests, shoulder harness, tinted glass.

CAPACITIES

No. of passengers	5
Luggage space, cu. ft.	16.25
Fuel tank, gal.	14.4
Crankcase, qt.	5.25
Transmission/diff., pt.	2/3
Radiator coolant, qt.	10.25

CHASSIS/SUSPENSION

Frame type: unitized, bolt-on body panels.

Front suspension type: Leading top links, transverse bottom links, horizontal coil springs, telescopic shock absorbers.

ride rate at wheel, lb./in.	91.0
anti-roll bar dia., in.	0.75

Rear suspension type: de Dion type sliding tube, universally jointed fixed length drive-shaft, Watts linkage, vertical coil springs, telescopic shock absorbers.

ride rate at wheel, lb./in.	98.0

Steering system: Hourglass worm and roller follower.

gear ratio	20.3
overall ratio	n.a.
turns, lock to lock	3.75
turning circle, ft. curb-curb	31.5
Curb weight, lb.	2900
Test weight	3300
Weight distribution, % f/r	52/48

BRAKES

Type: Single line hydraulic with outboard front and inboard rear caliper discs.

Front disc, dia. x width, in.	10.75 x n.a.
Rear disc, dia. x width	10.25 x n.a.
total swept area, sq. in.	436
Power assist	none
line psi @ 100 lb. pedal	n.a.

WHEELS/TIRES

Wheel size	5J x 14
optional size available	none
bolt no./circle dia., in.	5/5.0

Tires: Pirelli Cinturato

size	165-14
recommended inflation, psi	30/32
capacity rating, total lb.	3740

ENGINE

Type, no. cyl.	sohc, IL-4
Bore x stroke, in.	3.375 x 3.375
Displacement, cu. in.	120.8
Compression ratio	10.0
Rated bhp @ rpm	113.5 @ 5000
equivalent mph	96.5
Rated torque @ rpm	126 @ 3500
equivalent mph	67.6
Carburetion	2x1
barrel dia., pri./sec.	2
Valve operation: Single overhead camshaft.	
valve dia., int./exh.	1.654/1.341
lift, int./exh.	0.375/0.370
timing, deg.	18-42,48-12
duration, int./exh.	240
opening overlap	90
Exhaust system: Divided flow with twin headers, single tailpipe.	
pipe dia., exh./tail	n.a.
Lubrication pump type	rotor
normal press. @ rpm	50 @ 2000
Electrical supply	generator
ampere rating	30 @ 12 V.
Battery, plates/amp. rating	n.a./60

DRIVE-TRAIN

Clutch type: Diaphragm spring, single dry plate.

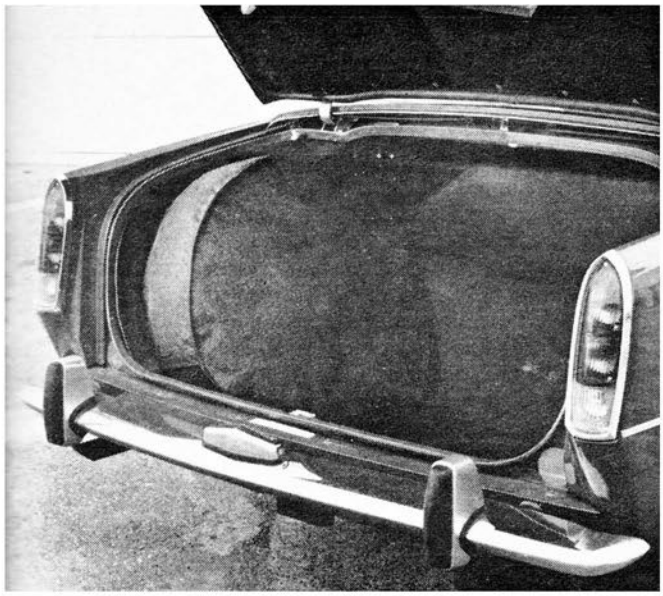
dia., in.	8.5

Transmission type: 4-speed manual, single helical constant mesh.

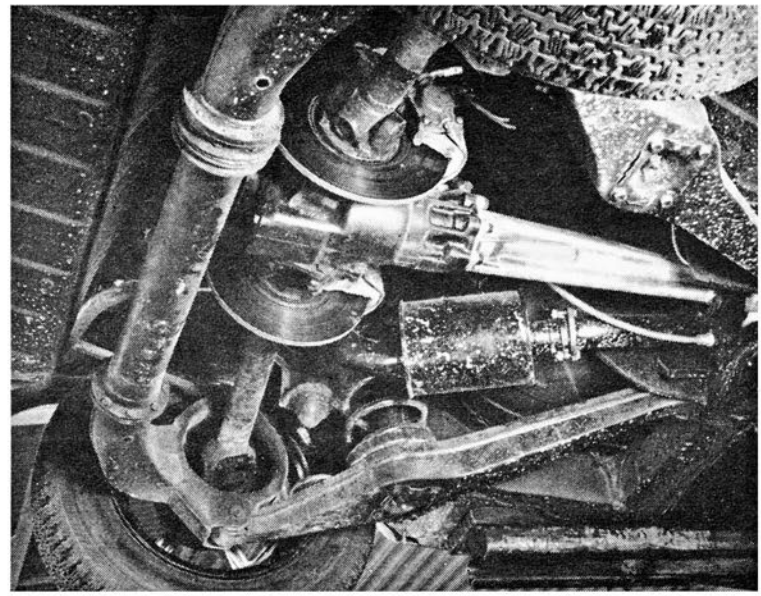
Gear ratio 4th (1.00) overall	3.54
3rd (1.39)	4.92
2nd (2.13)	7.55
1st (3.63)	12.82
synchronous meshing?	all
Shift lever location	console

Differential type: Hypoid gear and bevel pinion.

axle ratio	3.54



SURPRISINGLY LARGE, the small sedan's luggage compartment is adequate for extended travel.

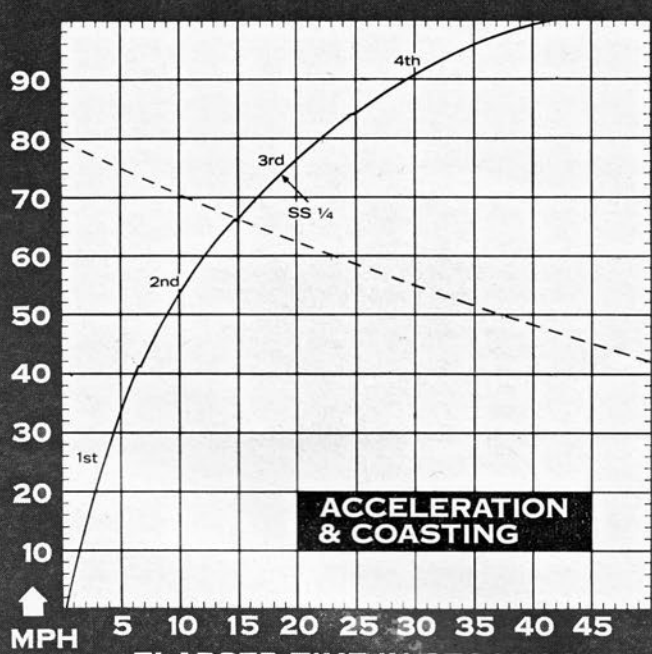


MODIFIED DE DION suspension, inboard disc brakes, and radial cord tires contribute to controllability.

projects into the passenger compartment at just about head level for a 5-year-old child seated in the rear. All of these things can cut, scrape and puncture in a crash situation.

Is the Rover 2000 TC safe? Once more, with feeling: The Rover 2000 TC is very safe in the hands of a skilled, cautious driver who is well schooled in defensive driving tactics. In the hands of an incautious driver, this car can, as can any car, become unsafe, though some of its features may protect such a driver in certain crash situations. The Rover 2000 TC makes a much better attempt at measuring up to its billing as a "safety car" than do some other automobiles advertised as such. The Rover 2000 TC is a good Scout, worthy of a merit badge for safety. ■

CAR LIFE ROAD TEST



CALCULATED DATA

Lb./bhp (test weight)	29.1
Cu. ft./ton mile	61.8
Mph/1000 rpm (high gear)	19.3
Engine revs/mile (60 mph)	3100
Piston travel, ft./mile	1745
Car Life wear index	54.2
Frontal area, sq. ft.	20.5
Box volume, cu. ft.	374.0

SPEEDOMETER ERROR

30 mph, actual	27.2
40 mph	37.2
50 mph	46.1
60 mph	54.2
70 mph	66.8
80 mph	77.7
90 mph	89.1

MAINTENANCE INTERVALS

Oil change, engine, miles	5000
trans./diff.	20,000
Oil filter change	5000
Air cleaner service, miles	5000
Chassis lubrication	10,000
Wheelbearing re-packing	10,000
Universal joint service	5000
Coolant change, mo.	n.a.

TUNE-UP DATA

Spark plugs	Champion N-6Y
gap, in.	0.023-0.027
Spark setting, deg./idle rpm	6
cent. max. adv., deg./rpm	26
vac. max. adv., deg./in. Hg	n.a.
Breaker gap, in.	0.014-0.016
cam dwell angle	n.a.
arm tension, oz.	n.a.
Tappet clearance, int./exh.	0.009/0.014
Fuel pump pressure, psi	2-3
Radiator cap relief press., psi	7.0

PERFORMANCE

Top speed (6000), mph	116
Shifts (rpm) @ mph	
3rd to 4th (6000)	84
2nd to 3rd (6000)	66
1st to 2nd (6000)	41

ACCELERATION

0-30 mph, sec.	4.8
0-40 mph	6.7
0-50 mph	9.3
0-60 mph	12.6
0-70 mph	17.1
0-80 mph	22.3
0-90 mph	29.0
0-100 mph	41.5
Standing ¼-mile, sec.	18.9
speed at end, mph	73.8
Passing, 30-70 mph, sec.	12.3

BRAKING

(Maximum deceleration rate achieved from 80 mph)

1st stop, ft./sec./sec.	.25
fade evident?	none
2nd stop, ft./sec./sec.	.25
fade evident?	none

FUEL CONSUMPTION

Test conditions, mpg	21.3
Est. normal range, mpg	20-23
Cruising range, miles	288-331

GRADABILITY

4th, % grade @ mph	11 @ 74
3rd	15 @ 62
2nd	21 @ 46
1st	32 @ 29

DRAG FACTOR

Total drag @ 60 mph, lb.	126