

The shape
of things
to come



TR7

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Sedan-like comfort for two, the bold wedge line of the great international sports-racers, overhead-cam power — key ingredients of this breakthrough machine by the sports car specialist.



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Of course you're surprised. So were Triumph's competitors. They forgot that Triumph and its parent, British Leyland, have a reputation for brilliant innovation and creative design. And the TR7 is their first sports car engineered completely from scratch, from the proverbial clean sheet of paper, by Triumph and British Leyland in concert. A glance tells you that in its style, proportions and engineering it is a sports car of rich character and bold personality. And though the TR7 is a comfortable coupe it is indeed a pure sports car, a frankly selfish carriage for just two people. It destroys many routine notions of what a sports car must be. So fresh and advanced is the look of the TR7 that you might wonder where the engine is. It's up front, where Triumph's many sports car racing championships have shown that it is well placed, improving straight-line stability and freeing the maximum amount of room in the rest of the car for people and their luggage. By slanting the four-cylinder engine at 45 degrees to the left, the hood can sweep ultra-low, forming the penetrating tip of the TR7's wedge-like profile, an aerodynamic contour proven effective in every kind of racing from Can-Am to Grand Prix. Both fuel economy and performance are aided by the clean, low-drag shape of the TR7. Functional louvers in the hood release warm air from the engine room, and a grille at the base of the windshield draws fresh air into the cockpit, both to the face-level vents and to the heater or the optional air conditioning system. Bold flares on the wheel openings help keep the body sides clean and permit unusually long wheel travel that gives the TR7 a fine ride.





If the TR7 seems to have an unusually wide, low, road-hugging look, it's because it has a wide track. And a wide track means better cornering, a better ride, and more useful space inside the car. Space is also added by the one-piece welded steel construction of the TR7 unit body and frame, which does away with the need for a separate chassis frame. By planning the TR7 as a close-coupled coupe the Triumph engineers could make its roof an integral part of the structure. This made the complete car stronger and formed a massive protective cage around the driver and passenger. The laminated safety glass windshield is ingeniously bonded in place by electrically curing its neoprene rubber seal under a stainless steel moulding. All the windows have Sundym tinted glass as standard. An inside latch releases the front-hinged hood, which has an additional safety interlock at its rear edge. A separate key unlocks the lid, more than four feet wide, above the luggage compartment, which technically holds 6.5 cubic feet and can accept two large golf bags. The two license plate lights are built into the edge of the lid. Beneath the trunk floor is storage for the spare wheel, tools and scissors jack, which fits into two pin-locking lift points on each side of the TR7. The wheel houses, sills and lower body panels are protected by a coating of black, stone-resistant underseal. Bold deep-section steel bumpers guard the front and rear from minor impacts and themselves have a tough skin of black polyurethane. At the front the running and side marker lights are attractively inset into the deep wrap-around motif. Bumper guards are standard at the rear, as also are a retractable radio antenna and twin backup lights.

No, sports cars are not what they used to be. They're better, and for firm evidence of that you need look no farther than the instrument panel of the Triumph TR7. It reconciles with extraordinary success the demands of passenger safety, complete comfort, aircraft-quality precision in controls and instruments for the driver, and satisfying good looks in the part of the car you see most often. Safety is enhanced by the recessing of many controls and by the use of flat-surfaced toggle and push-button switches for lights, hazard warning and demister. There are convenient column levers for other functions. The left-hand lever sounds the horn, dims the headlights and operates the directional signals, and the one on the right controls the windshield wiper and washer. Pressing the wiper lever down, against a return spring, will turn the wipers on for a few sweeps of the screen. Four long-travel levers in quadrants on the center console allow precise adjustment of the heater, the fresh-air volume or the optional air conditioning. Large face-level air vents at the center and sides of the dash have adjustable guide vanes for controlling the direction of flow. Warm or cool air may also be directed up to the windshield or down to the footwells. Stale air is drawn out of the cockpit through slots at the base of the rear window and grilles in the rear quarters of the roof. A standard equipment electrically-heated rear window prevents misting up. Twin radio speakers are standard, as is a lock for the deep glove compartment. A passenger assist grip is moulded into the top of the dash. Split by a vertical row of warning lights, the clean-faced, reflectionless instruments—4 in. diameter speedometer and 7000 rpm tachometer—have a look of micrometric precision. Supplementing them are a clock and water temperature, voltage and fuel level gauges.





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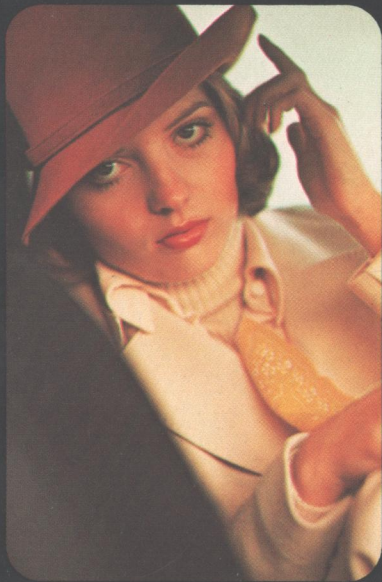
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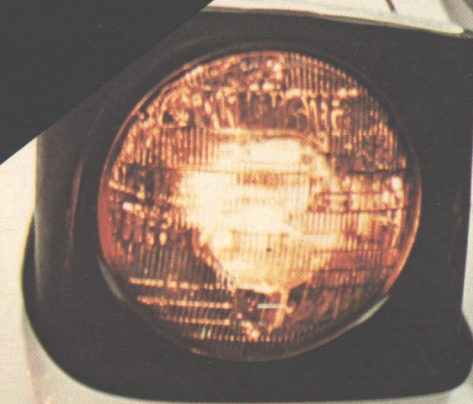
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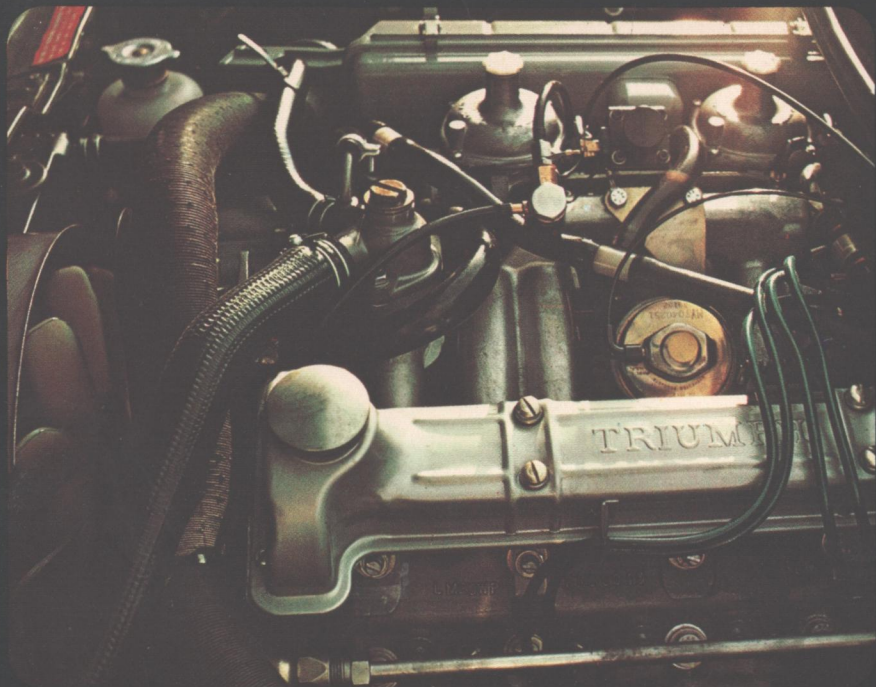
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Triumph designed the TR7 around its two occupants, who are cradled in two of the most comfortable seats this side of a London club. They're faced in luxurious brushed nylon broadcord cloth, in either black or beige. Both the back angle and headrest height may be adjusted, and a wide bar beneath the seat makes legroom adjustment very convenient. All pedals are suspended. On the left the driver has a footrest, just right for extra support when cornering quickly with the TR7. Other support comes from the deeply curved seat back and from the three-point safety harness. It's designed for one-hand latching with a self-retracting shoulder belt reel. Concealing the reels is a trimmed panel behind the seats which has trays for temporary storage moulded into its upper surface. Maps and small objects may also be tucked into two flexible pockets and a bin with padded hinged lid built into the armrest between the seats. It blends into a console carrying the quick-release lever of the powerful drum-type handbrake and, placed just right, the shift lever for the standard four-speed transmission.



With rakish optional striping along its flank, the TR7's personality is expressed by its dart-like profile. The old-fashioned radiator grille is gone. Even the headlights have disappeared beneath the body skin. When you switch on the lights they're flipped into position fast by a spring and an electric motor, and held there by an automatic safety catch. Triumph took care to reduce the hazard the raised lights pose to pedestrians. Instead of framing the lenses with sharp edges, they surround them with a rounded, flexible moulding. Also part of the TR7 profile are its 13-inch road wheels. They're vented for brake cooling and fitted with black polycarbonate trim discs. In its use of wide (5½-inch) safety-ledge rim wheels of 13-inch diameter the TR7 follows the lead of modern Grand Prix cars. This gains for it the same advantages of lower unsprung weight, for better grip on bumpy roads as well as an improved ride, a lower overall center of gravity, plus the compact turning circle (only 29 feet) that's a Triumph trademark.





Though new to the TR7, its short-stroke overhead-camshaft engine is no newcomer to the Triumph range of cars, having already been built by the hundreds of thousands. It belongs to the same family as the advanced European rally-winning Triumph Dolomite high performance engine. Designed for long life, it has water jackets fully circling each cylinder bore, a duplex chain drive to the single overhead cam, and rugged direct-acting cup-type tappets that eliminate routine valve clearance adjustments. Using ferrite rod triggering instead of ordinary breaker points, the TR7's electronic ignition system needs little service. The water pump for its semi-sealed cooling system has a direct mechanical drive from the crankshaft rather than vee-belt drive, for greater reliability.

Triumph TR7 Specifications

Engine

In-line 4 cylinder, inclined left at 45 degrees. Overhead valves, in-line, with overhead camshaft. 5-bearing counterbalanced forged crankshaft. Cast chromium iron cylinder block. Cast aluminum cylinder head, valve seat inserts. Compression ratio: 8.0 to one. Bore: 3.56 in./90.3 mm. Stroke: 3.07 in./78 mm. Displacement: 122 cu. ins./1998 cc. Exhaust and evaporative emission controls. Carburetion: (Federal) Twin 1.75 in. Stromberg CD2SEV side-draft; (California, with catalytic converter) Single 1.75 in. Stromberg CD4VT side-draft. Fuel capacity: 14.5 U.S. gallons. Cooling: Pressurized 'no-loss' liquid system with separate expansion tank. 13-blade fan with viscous coupling drive. Ignition: Lucas electronic, with centrifugal advance and vacuum retard, 6-volt coil with ballast resistor in wiring harness.

Drive Train

Transmission: manual four-speed with helical constant-mesh gearing and synchromesh on all forward speeds, single selector rail and remote-control shift lever. Clutch: 8.5 in. diameter single dry plate with diaphragm spring, hydraulic operation. Final drive: live rear axle, hypoid bevel gears, two-pinion differential. Overall gear ratios: Reverse 10.95:1, First 9.62:1, Second 6.47:1, Third 4.56:1, Fourth 3.63:1.

Steering

Rack and pinion steering gear. Steering wheel: 13.5 in. diameter, dished three-spoke with padded spokes and rim and center crash pad. Turns lock to lock: 3 $\frac{3}{8}$. Energy-absorbing steering column with anti-theft locking device.

Suspension

Front: independent, MacPherson strut with tubular hydraulic shock absorbers coaxial with coil springs, forged steel lower links, anti-roll bar serving also to triangulate the lower links. Rear: four-link system of live axle location, converging upper radius rods, lower longitudinal trailing arms with attachments to coil springs and anti-roll bar, tubular hydraulic shock absorbers.

Brakes

Tandem master cylinder operating front and rear brakes independently, direct-acting vacuum power booster with nominal 2.3:1 boost ratio. Front: self-adjusting disc brakes, 9.75 in. diameter and $\frac{3}{8}$ in. thick. Rear: drum service and parking brake, self-adjusting, 8 in. diameter and 1.5 in. wide.

Road Wheels

Pressed steel, ventilated, 13 x 5.5J safety ledge rims, four-stud attachment, fitted with 175/70SR x 13 radial-ply tubeless tires. Wheel trim rims.

Dimensions

Wheelbase: 85.0 ins., Front track: 55.5 ins., Rear track 55.3 ins., Overall length: 164.5 ins., Overall width: 66.2 ins., Overall height: 49.9 ins., Ground clearance: 4.5 ins., Turning circle dia: 29.0 feet, Basic curb weight: 2241 pounds.

Electrical

Negative-ground 12-volt system. Battery: 50 ampere-hour at 20-hour rate. Lucas 17ACR 36-ampere alternator. Lucas M100 pre-engaged starter motor.

Two-speed electric two-blade windshield wipers, self-parking, pantograph arm on driver's side. Electric pump-operated windshield washers. Twin Lucas horns. Two 7-in. electrically-raised retractable sealed-beam headlamps. Direction indicators, side marker lamps, stop and tail lamps, and twin reversing lamps. Electrically-heated rear window. Four-way hazard flashers.

Instruments

Speedometer graduated in miles and kilometers per hour, total and trip odometers, electronic tachometer, water temperature, battery condition (voltage) and fuel gauges. Electric clock. Warning lamps for high beam, ignition, oil pressure, direction signals, low fuel level, hazard flasher, seat belts, brake pressure, EGR valve service and (depending on specification) choke and catalyst service.

Body

Steel-paneled monocoque body-frame with integral roof structure, designed to meet all U.S. Government requirements for front and side impact and roll-over protection. Corrosion-protected by zinc coating of main box members under the floor pan, phosphating, and prime-coating in an electrophoretic dip and an electrostatic spray. Forward-hinged hood with interior latch and self-locking support stay. Locking trunk with automatic lid support. Laminated safety glass windshield, fixed front quarter windows, winding side windows of toughened safety glass. Sundym tinted glass for all windows. Forward-hinged doors with anti-burst locks, flush-fitting interior and exterior handles.

Interior

Individual bucket seats trimmed in brushed nylon broadcord and expanded PVC, adjustable for leg room, back angle and headrest height. Three-point inertia-reel safety harnesses with one-hand locking, quick-release buckles. Moulded pile carpeting with driver heel mat. Padded sun visors with vanity mirror on passenger side and pocket on driver side. Day/night rear-view mirror with breakaway support. Lockable glove compartment, storage bin between seats, flexible map pockets. Cigarette lighter, flush-fitting ashtray in each door panel, roof lamp with integral switch and door-operated switches, twin radio speakers.

Colors

Body colors: Carmine, Pimento, White, British Racing Green, Java, Russet Brown, Inca Yellow, Tahiti Blue.

Options and Accessories

Air conditioning, AM/FM radio, AM/FM stereo 8 track radio, or AM/FM stereo cassette radio. Striping kit in black, silver or gold. Door edge guard. Luggage rack. Floor mats.

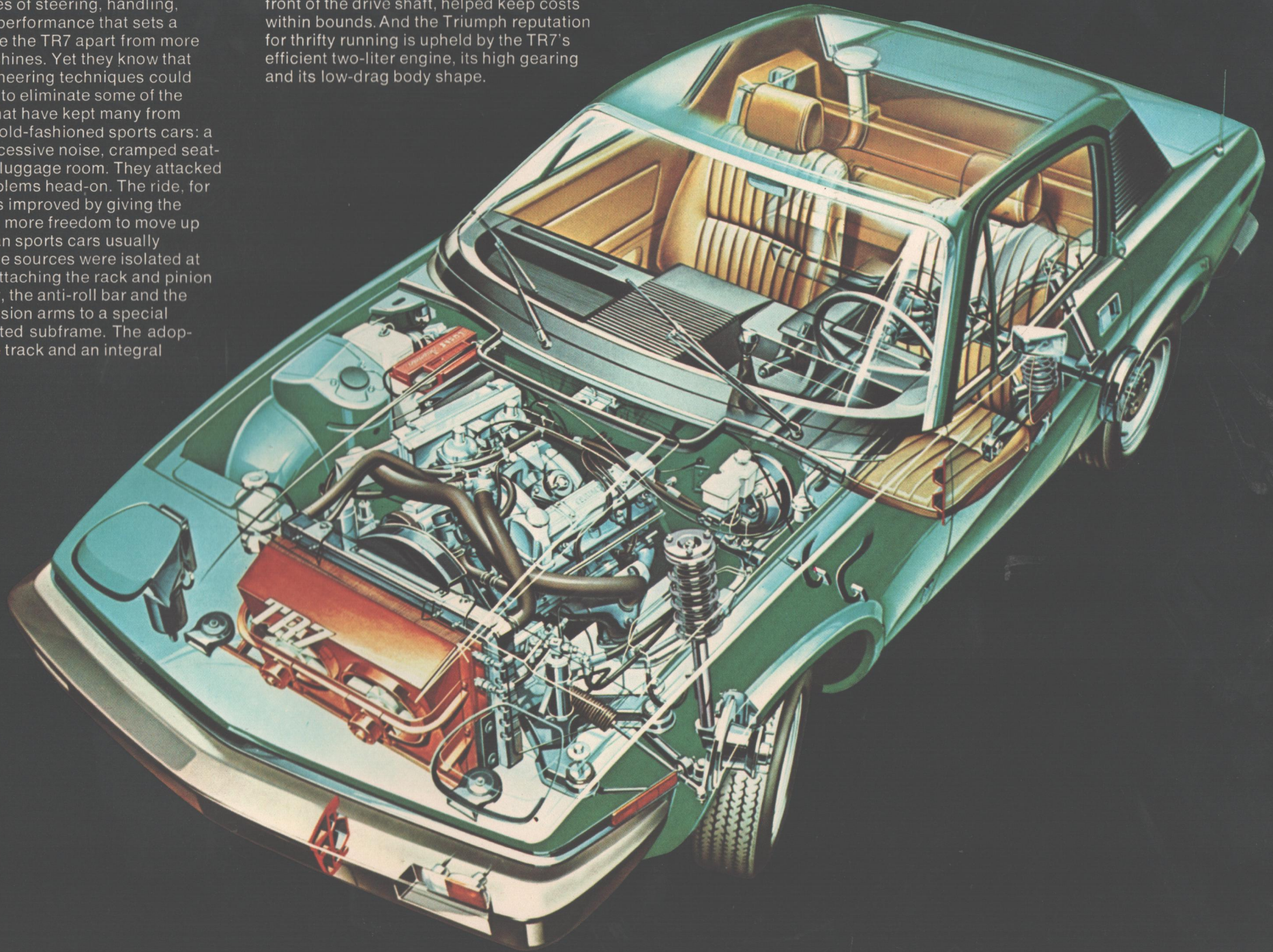
Specifications, colors and prices subject to change without notice.

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More than four years in the making, the TR7 was conceived and designed by some of the most experienced and creative men in the British motor industry. These are men who would brook no sacrifice in the qualities of steering, handling, braking and performance that sets a sports car like the TR7 apart from more ordinary machines. Yet they know that modern engineering techniques could also be used to eliminate some of the drawbacks that have kept many from enjoying the old-fashioned sports cars: a hard ride, excessive noise, cramped seating and little luggage room. They attacked all these problems head-on. The ride, for example, was improved by giving the wheels much more freedom to move up and down than sports cars usually provide. Noise sources were isolated at the front by attaching the rack and pinion steering gear, the anti-roll bar and the lower suspension arms to a special rubber-mounted subframe. The adoption of a wide track and an integral

body/frame added spaciousness, and the use of a conventional drive train, with such improvements as single-rail shifting for the manual transmission and a constant-velocity universal joint at the front of the drive shaft, helped keep costs within bounds. And the Triumph reputation for thrifty running is upheld by the TR7's efficient two-liter engine, its high gearing and its low-drag body shape.



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