

318i

Bavarian Motor Works, Munich, Germany

BMW AG



BMW

**Introducing the
BMW 318i.
The first sports sedan
capable of replacing a
legend.**

As the designated successor to the BMW 320i, the 318i naturally invites the most critical scrutiny. After all, it inherits the mantle of what *Car and Driver* called "the quintessential sports sedan" and "the sort of car enthusiasts turn into legend." A car that has inspired near-reverence among owners. And feverish imitation among other car makers. Now, initial reviews of the 318i on both sides of the Atlantic confirm once again that BMW is the only car company capable of building a BMW. *Autocar* credits the 318i with achieving "new levels of refinement." "The car has taken a big step forward," agrees *Car*. "The ride comfort," pronounces *AutoWeek*, "is little short of sensational." *Car and Driver* deems its handling and road holding "magnificent." Good news indeed for driving enthusiasts. But the worst news possible for pretenders to the 320i's title.

A refusal to reinvent the automobile.

The success of the 318i underscores a point the pretenders are unwilling if not unable to grasp: Cars that are annually new are at a permanent disadvantage to those that are annually better. Simply because there's never time enough to refine something you're forever reinventing. Obedient to the dictates of marketing, the auto industry veers between producing "revolutionary" new cars touted as economical, or functional, or exciting, depending on the season. Obedient to the credo that performance is the true measure of a car's worth, BMW has spent 55 years single-mindedly evolving machines as nearly perfect as German engineering can make them.

By that unswerving standard, the 318i is one of the most refined sedans BMW has ever built.

Its numerous improvements and innovations range from a redesigned chassis — one that incorporates significant refinements in suspension design in previous years — to an electronic system that actually calculates when routine servicing is needed. Even its aerodynamics are improved, lowering wind resistance without compromising the distinctive BMW silhouette.

For driving enthusiasts who are also
enthusiastic about solvency.

A test drive of the 318i reinforces *Motor Trend's* observation that "...once a knowledgeable and experienced driver has driven a BMW, any BMW, nothing else feels quite as good as it did before."

Over the longer haul you should find that the 318i contributes significantly to prosperity as well as enjoyment. It delivers more miles per gallon. An enviable 27 mpg, 38 highway, thanks not only to its sleeker shape but

to improved engine efficiency and a 92-pound weight reduction.* What's more, the attention to detail and quality that goes into the construction of every 318i both explains and justifies its extraordinary warranty: a 3-year/36,000-mile limited warranty and a 6-year limited warranty against rust perforation.** And while we cannot guarantee how the 318i will perform on the used-car lot, NADA Official Used Car Guide figures show that the BMW 3-series has traditionally enjoyed one of the highest resale values of any car in its price class. Which suggests why a turbulent economy ultimately feels less threatening in The Ultimate Driving Machine.

**The car maker that
defined performance
now raises the
standard.**

BMW's contributions to international rallies and Grand Prix racing for more than half a century reflect its definitive insight into the nature of performance. Which is not just road-holding prowess, or agility through corners, or acceleration. But all of these in tandem. Hence, the 318i is no mere miscellany of parts and systems but a superb matching of them. If it surpasses its predecessor in this regard, and it does, that is because BMW's true competition has always been BMW itself.

"The best-balanced small sedan,"
improved.

At its heart is a 4-cylinder engine that is the basis for those now competing in Formula One racing. It's new L-Jetronic fuel injection results in even greater quickness and torque.

BMW engineers, who are racing engineers by nature and by profession, have been neither timid nor foolhardy in their integration of this formidable power plant with the car as a whole. The 318i's front disc brakes have been enlarged to keep pace with its greater exuberance. They are cooler running brakes with asbestos-free linings, and are augmented by a brake booster that allows precise control.

The gearbox has been refined to match the greater torque, while retaining the characteristic smoothness and precision that has been compared to the linkage of fine timepieces.

The redesigned fully-independent suspension complements the 318i's increased ability to whisk over the road with an increased ability to adhere to it. (To reiterate, the car's handling and road holding have been termed "magnificent.")

All in all, the 318i advances the dynamic equilibrium that led *Car and Driver* to call the 320i "maybe the best-balanced small sedan in the world."

And thereby elevates the admission requirements for all cars asking to be taken seriously as sports sedans.

Performance you don't have to be a
masochist to enjoy.

Curiously, many believe that a noisy, bone-rattling ride somehow certifies a vehicle as a true performance car. The 318i refutes this piece of illogic. It is abundantly and effectively equipped with noise- and vibration-dampening measures, from flusher-fitting side windows to new rubber-bonded metal engine mounts.

"Turn the ignition key," reports *Car*, "and the engine springs into life, but you instinctively touch the accelerator to check that it's really running. It's as quiet as that."

AutoWeek concurs. The 318i "is a car which is extremely quiet and vibration-free — even at high engine speeds and over poor road surfaces."

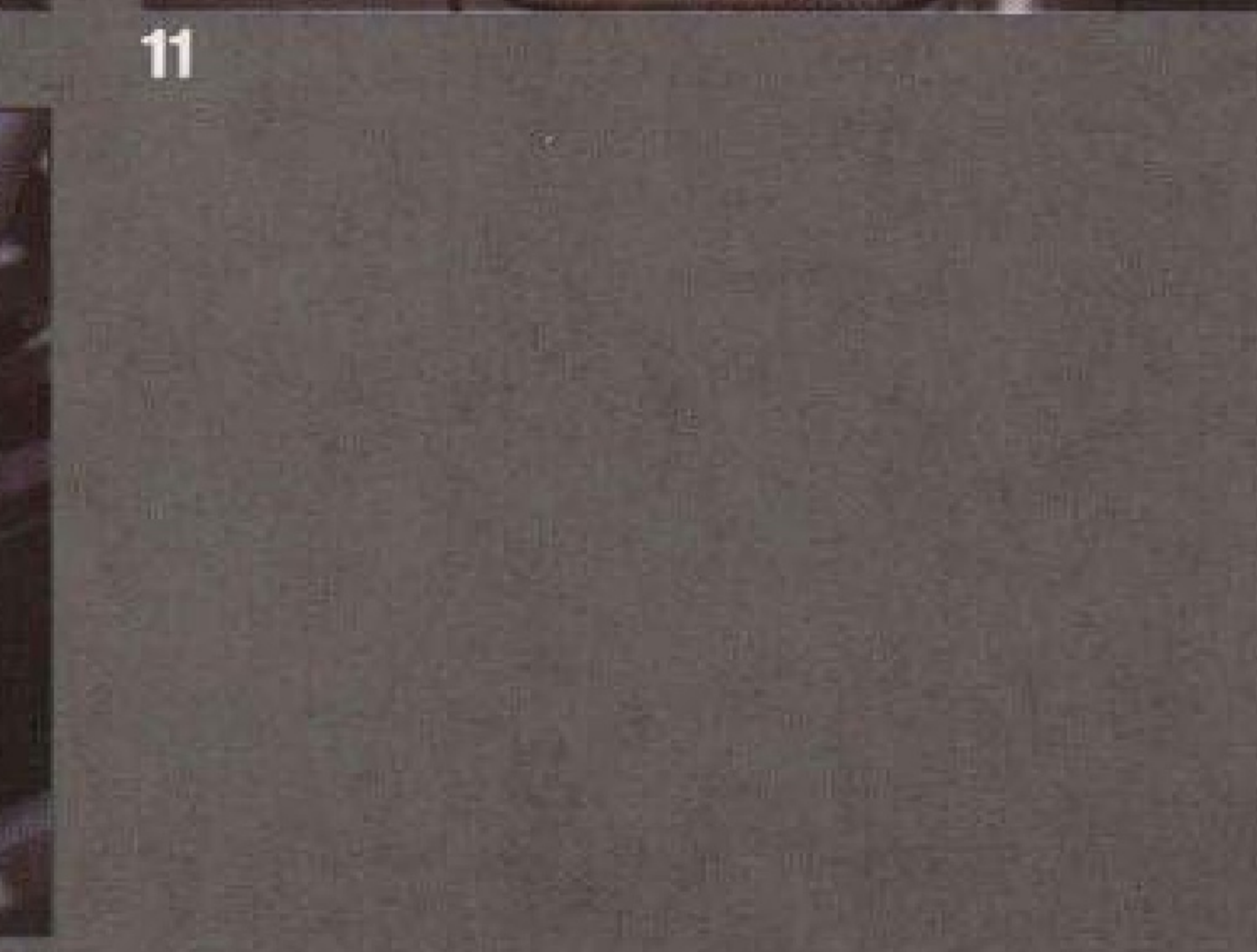
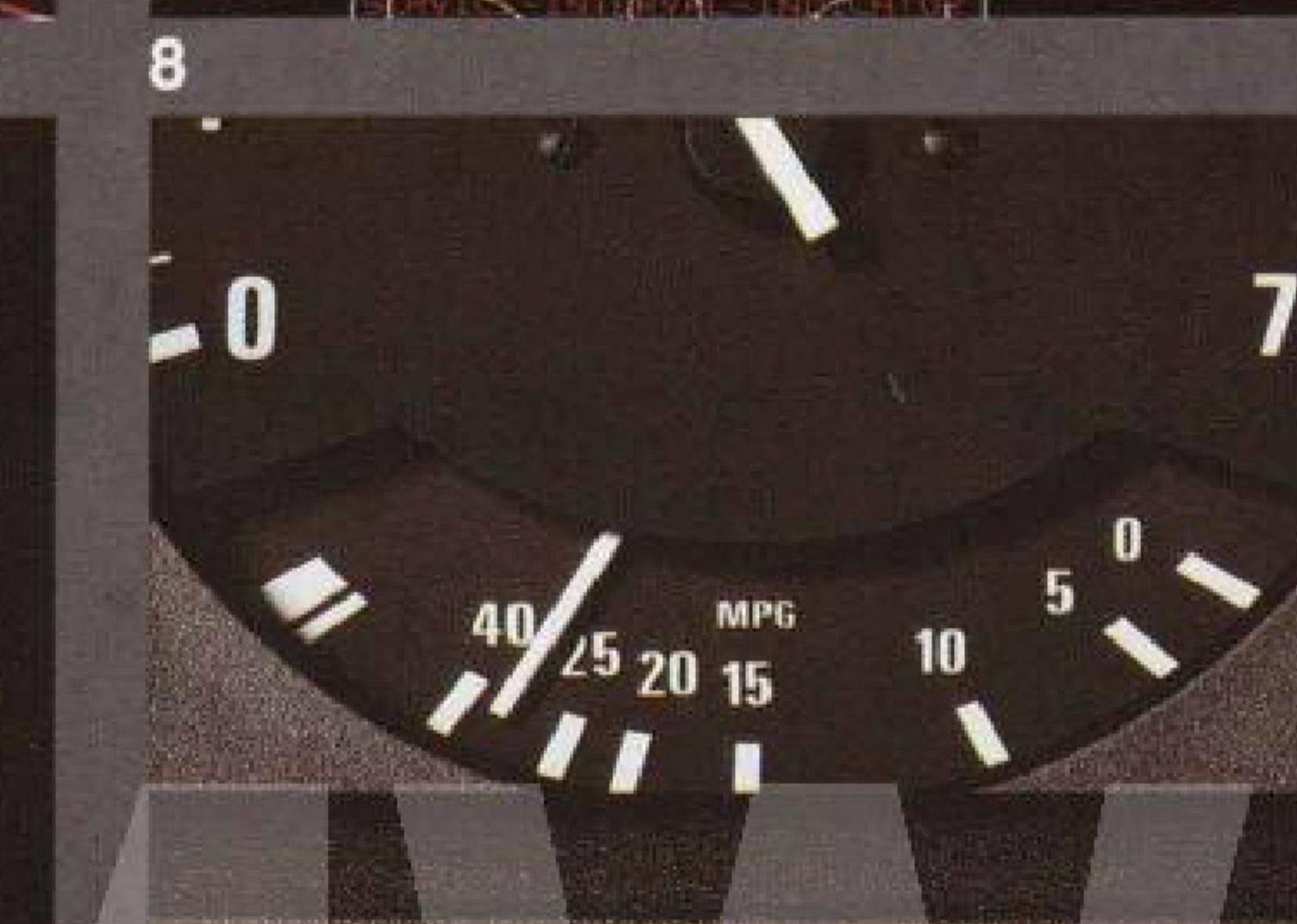
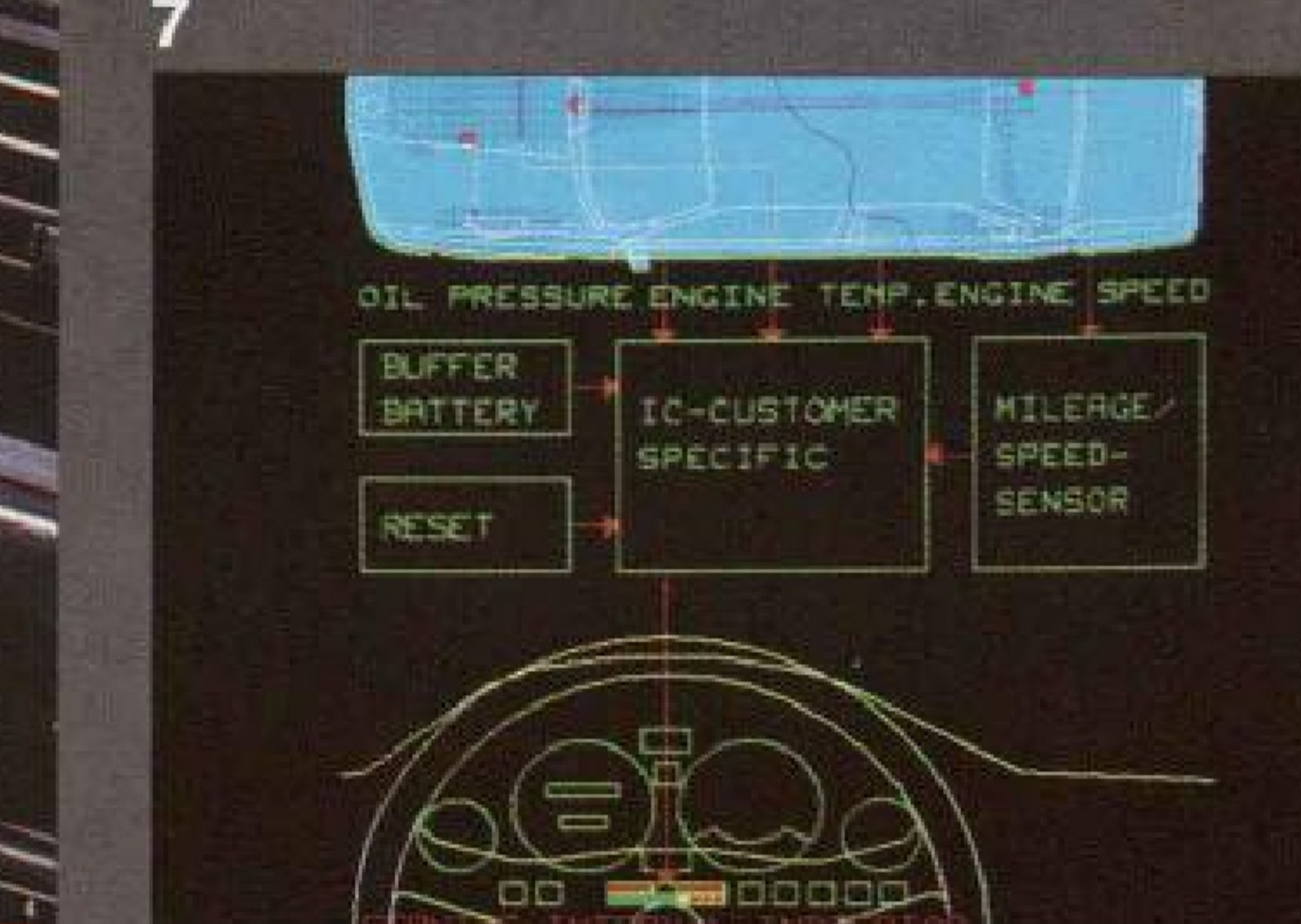
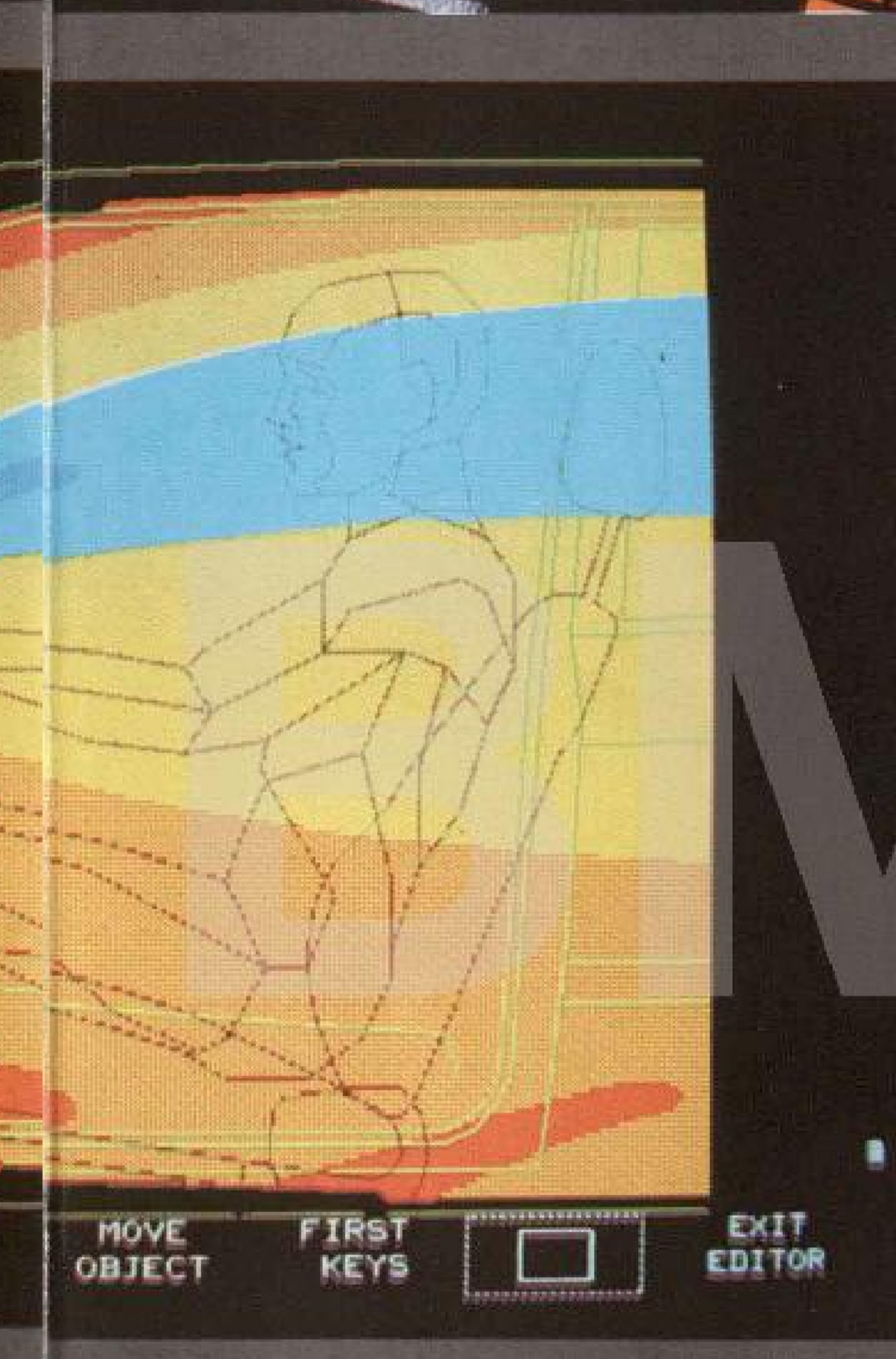
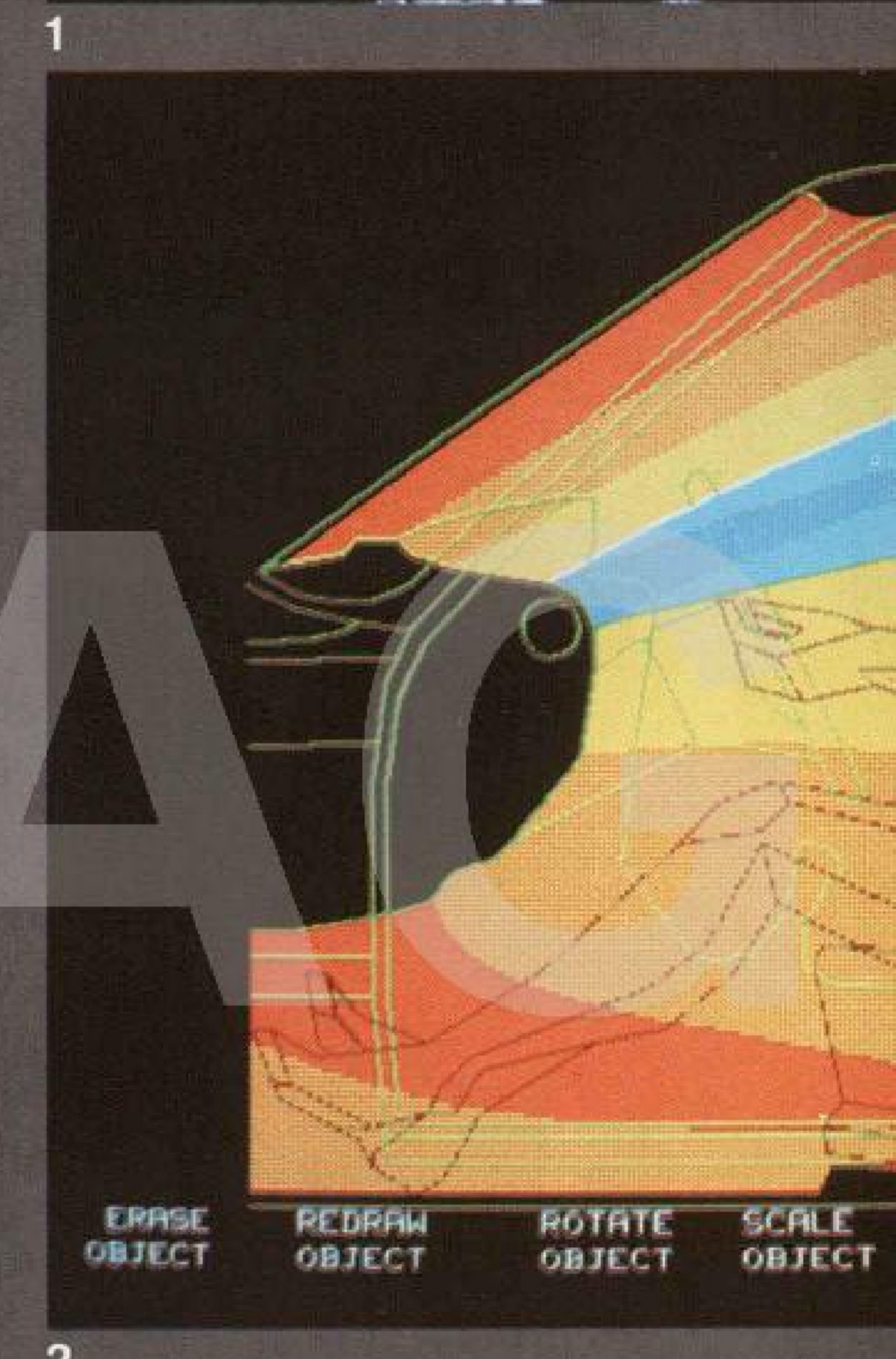
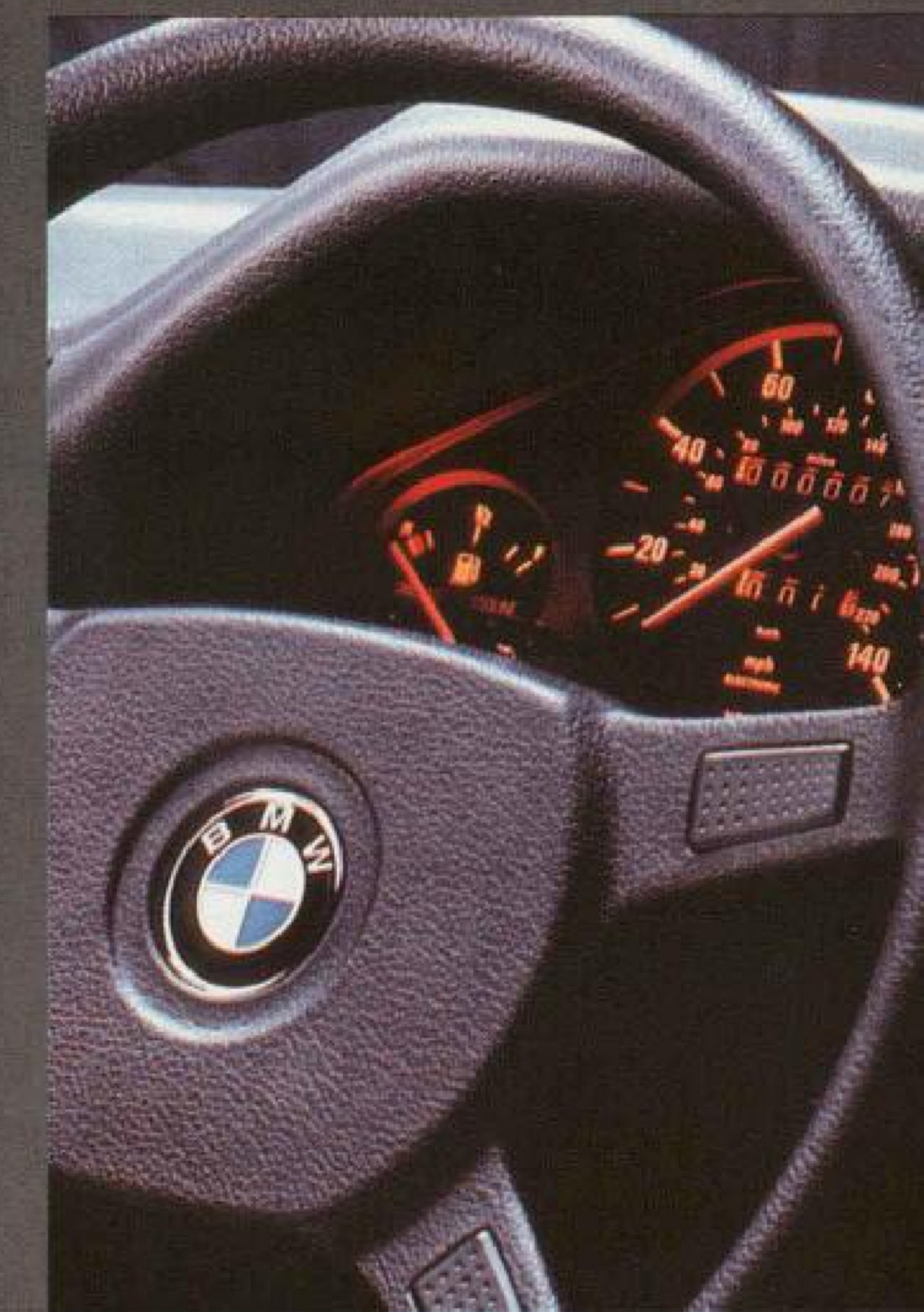
The 318i similarly counters the notion

that a compact sports sedan must inevitably compact its inhabitants' heads and knees. It is shorter overall than the 320i — a car whose own interior has been described as generous — yet it paradoxically manages to provide even more passenger room.

And while no one ever confused the 320i's trunk with its glove compartment, the 318i's higher, squarer rear deck allows extra space for a weekend's worth of luggage, golf clubs, or ski gear.

*EPA fuel efficiency figures are for comparison only. Your actual mileage may vary, depending on speed, weather, and trip length. Actual highway mileage will most likely be lower. **Warranty applies to automobiles purchased from authorized U.S. BMW dealers only. See your BMW dealer for details.





The instrument panel is an arc around the driver, placing all controls within easy, safe reach, no matter how the seat is adjusted (large photo).

Using such data as engine load, coolant temperatures, and the number of cold starts (8, 10), the 318i's electronic circuitry calculates precisely when routine service is needed and causes the Service Interval Indicator to light up (7).

The cockpit has been ergonomically designed through intensive research and with the aid of computers (12), resulting in the superior interaction between man and machine.

The Energy Control indicates in each gear precisely how much gas is currently being consumed, allowing you to adjust your driving habits for maximum fuel efficiency (9, 10).

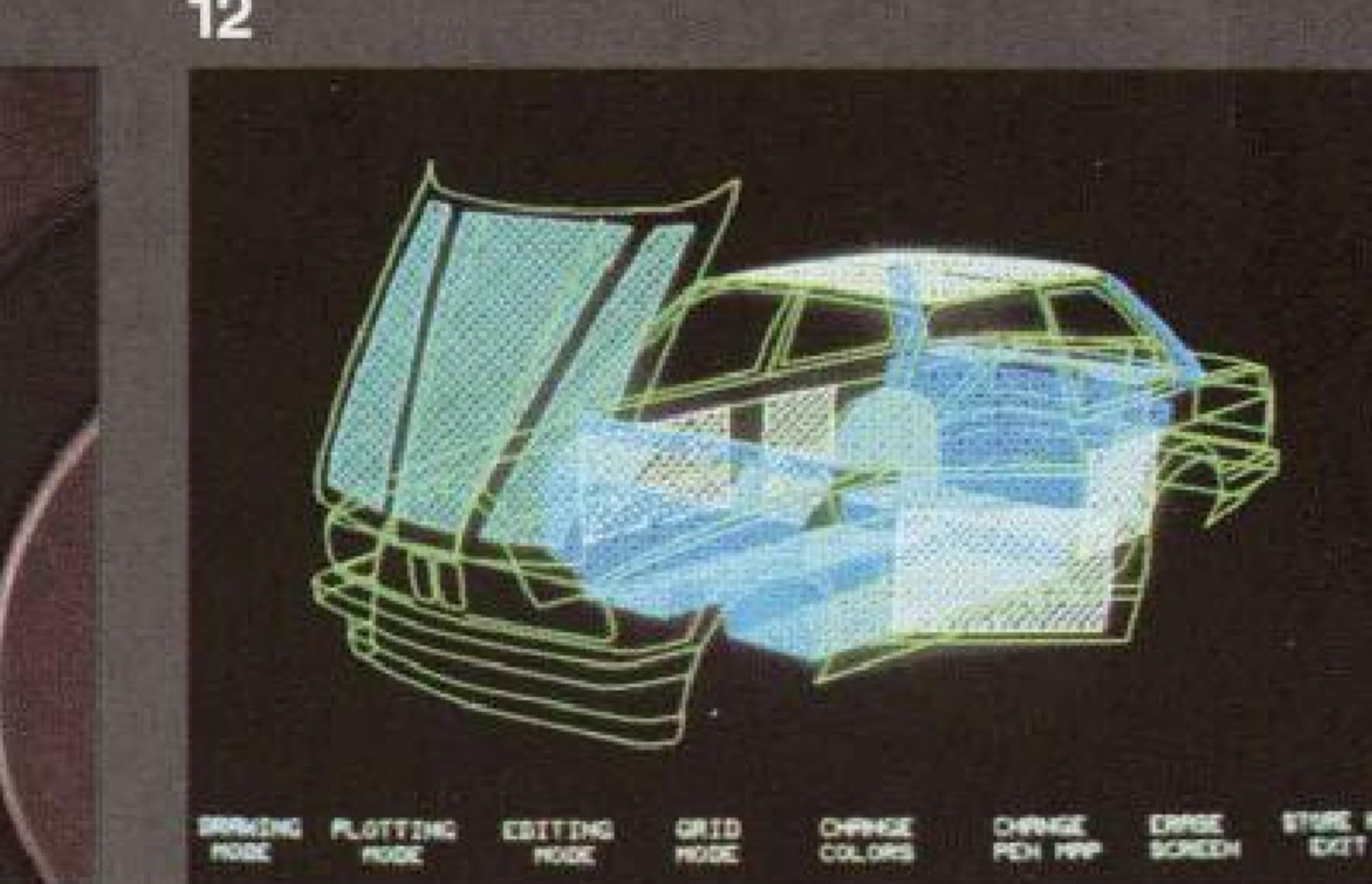
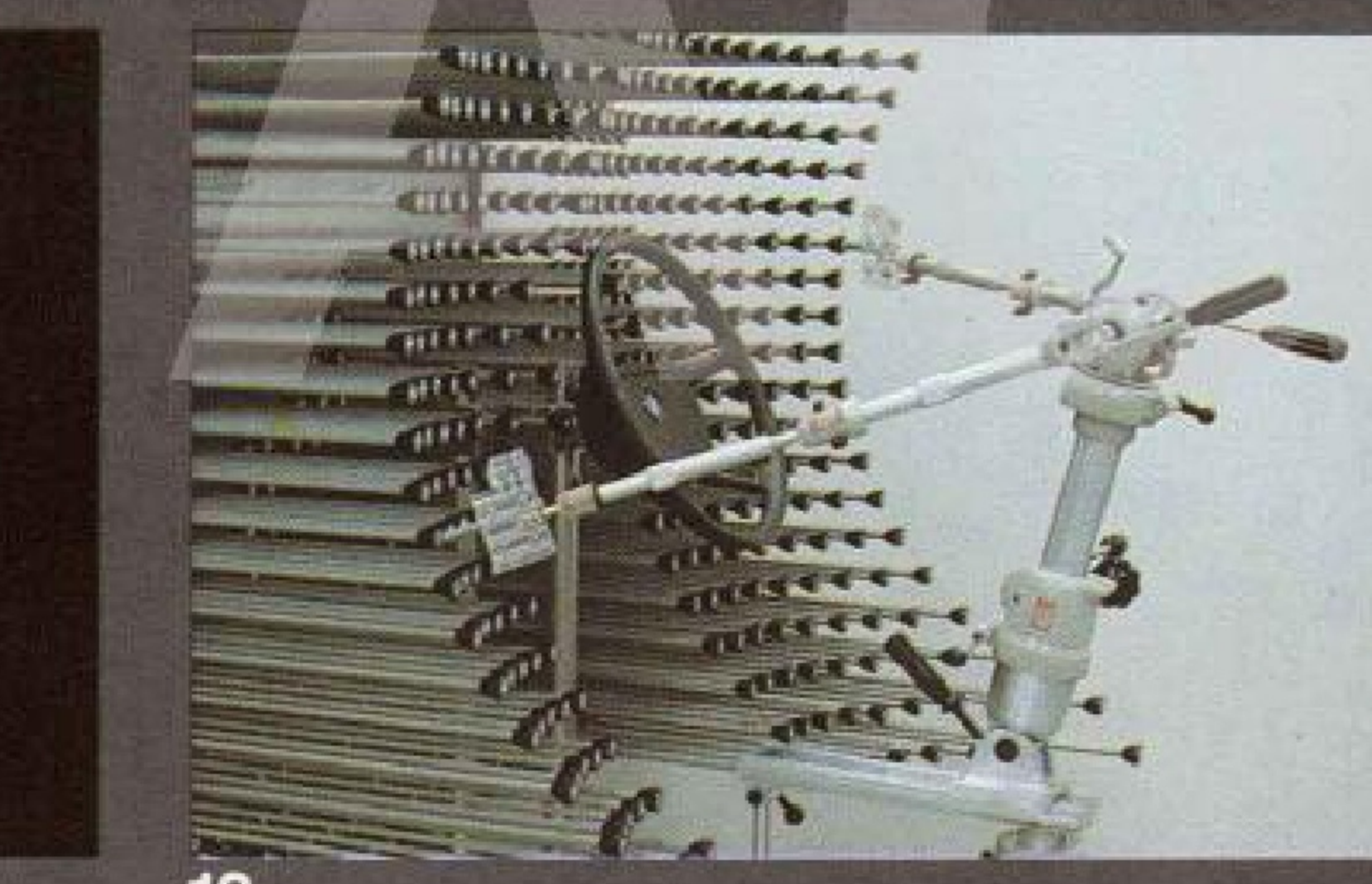
The optional automatic gearbox (large photo) is a fully integrated element of the complete drive system, and harmonizes perfectly with the rpm development of the engine.

Cylindrical vents (5, 6) can be hand-adjusted to direct the flow of air from the ventilation, heating and air conditioning system.

All dashboard switches are clearly marked (11).

The 318i benefits from improvements in noise control, with sound-deadening material blanketing large areas of the body (13).

The 5-speed manual transmission is



standard (3). The newly-refined gear-box retains the smoothness and precision that characterizes all BMW's.

The AM/FM radio (optional) is integrated into the dashboard layout. Designed according to BMW's specifications in order to conform with the cockpit's ergonomic design, the radio features digital station display, phase lock, signal-seek automatic tuning, electric antenna and four speakers (5).

A sports sedan that offers rapport, as opposed to resistance.

If you've ever driven a typical sports sedan, you may well have had the feeling of being a biological intrusion. Awkward seating, clumsy steering-wheel placement, and hard-to-read instruments that supply insufficient if not meaningless information have a way of impeding control. The welcoming cockpit of the 318i, in contrast, is the result of thousands of hours of research and testing with a single end: To make total control as effortless as possible, even under adverse driving conditions.

"The finest quality car available."

When you take the wheel of the 318i, you're not just sitting in a BMW. You're connected to it. The orthopedically-designed adjustable bucket seat cradles you into optimal alignment with the wheel. Fumble-proof controls are within easy reach. Main instruments are clustered in a semicircular arrangement within your field of vision. They are unambiguously marked and, at night, bathed in an optically beneficial orange light. Such ergonomics demonstrate why, as AutoWeek puts it, "many consider the BMW the finest quality car available on the market today." But they only hint at an equally salient dimension of control. Namely, the range and quality of information the 318i puts at your disposal. To cite just two new examples, there's the Energy Control fuel consumption indicator at the base of the tachometer and the Service Interval Indicator centered on the dashboard. The first encourages thrifty driving habits by displaying exact fuel consumption at any given instant. The second takes into account individual variations in driving habits and alerts you when routine maintenance is called for.

Steering that doesn't just aim, but informs.

Recent research by the University of Freiburg confirms what the racing engineers of BMW have long known: The "road feel" registered by a car's suspension and communicated through the steering wheel is vital to your awareness of the road's condition and the car's performance. And hence, vital to your control. Ordinary power-steering that remains constant at all speeds, while convenient for parking and city driving, disconcertingly numbs this flow of information during faster travel. The 318i's graduated power-steering, however, relaxes its assistance as the engine speeds up. Thus ensuring you the road feel crucial in quick maneuvers.

Finally, true control over your car's weather.

Heating, ventilation, and air-conditioning are less than vital control systems, perhaps, but they can be inadequate and distracting ones. Not so in the 318i. You can select the most comfortable mix of cool and warm air and distribute it evenly through ten strategically-placed outlets. Ending the paradox of warm toes, cold nose. The temperature level is virtually free of annoying ups and downs, too, since heating and ventilation is no longer dependent on engine speed. The air conditioning, now standard and fully integrated into the system, has two virtues of special interest. When you activate the recirculation control, it won't draw noxious fumes from outside, even in heavy traffic. And moisture is removed from the air so windows won't fog, even in rainy weather. Thereby permitting the driver to concentrate on being a driver rather than a windshield wiper.

Technology for the sake of performance instead of gimmickry.

Digital electronics have lately become a major trend in automotive design, often offered in such forms as digital speedometers and advanced radio tuners. Unfortunately, while applications of this kind may license a car maker to raise prices, they do relatively little to raise a car's performance. BMW's approach to technology is precisely the opposite. The technology you find in the 318i is there because it increases performance and encourages economy. Not merely in theory but in actual driving.

Maintenance minus the usual guesswork.

It is self-evident that a car can't perform well unless it is maintained well. But ordinary timetables for routine maintenance can prove costly. Since they are based only on the number of miles a car is driven, not how those miles are driven, they can lead to needless servicing. Or cause you to overlook a need for servicing. That's why BMW developed the new computer-driven Service Interval Indicator. With the aid of electronic sensors located around the engine, the Indicator monitors individual variations in driving habits – as measured by factors such as engine speeds: coolant temperatures, and the number of cold starts – along with actual mileage. The Indicator's computer then processes this data and calculates when oil servicing and other routine maintenance is genuinely called for. If you do a lot of punishing stop-and-start city driving, for example, the Indicator's strip of green-to-amber-to-red lights will inform you of the need for maintenance sooner than if you accumulate the same number of miles in smooth highway cruising. It is, in effect, the first known example of a car evaluating its driver.

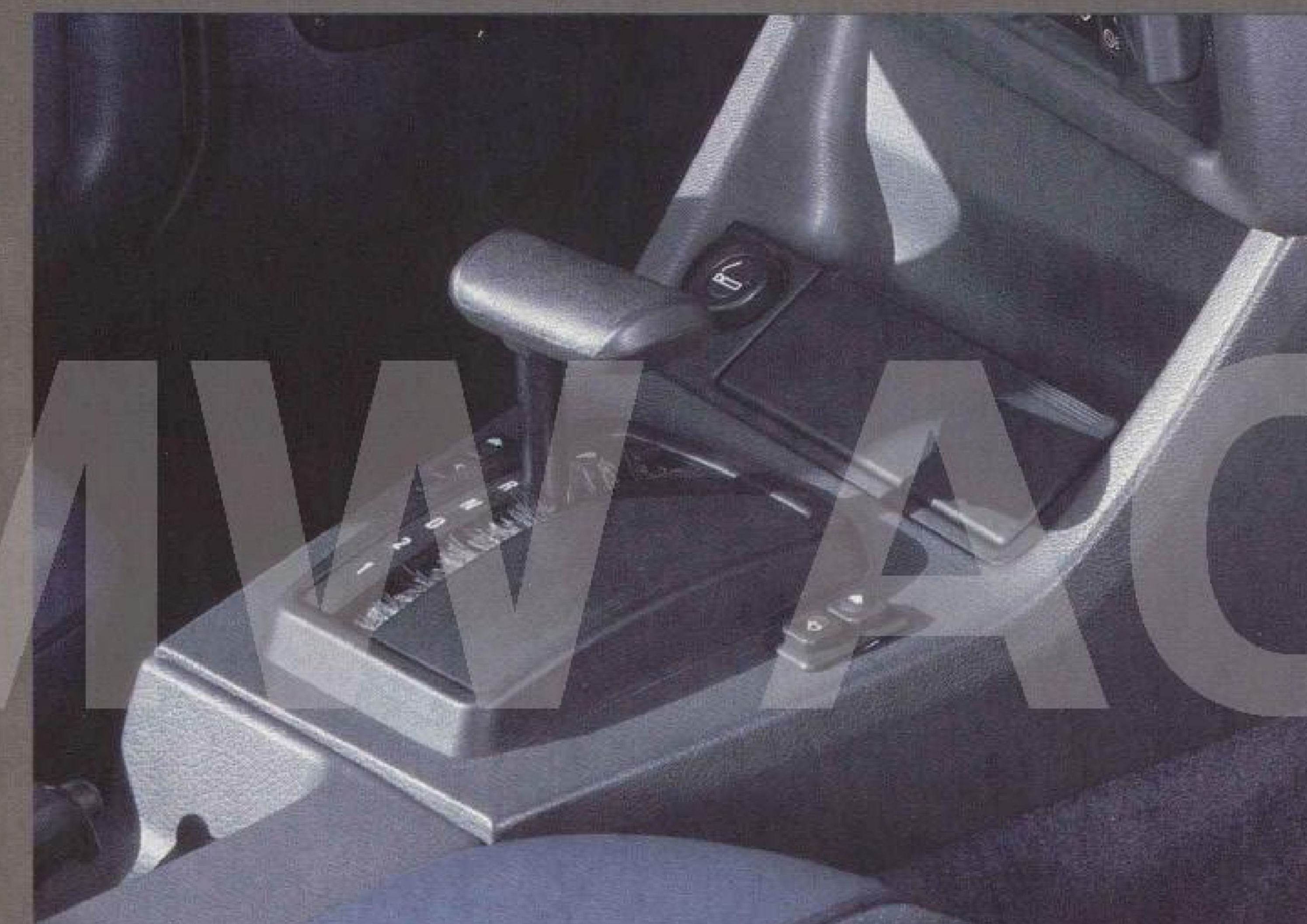
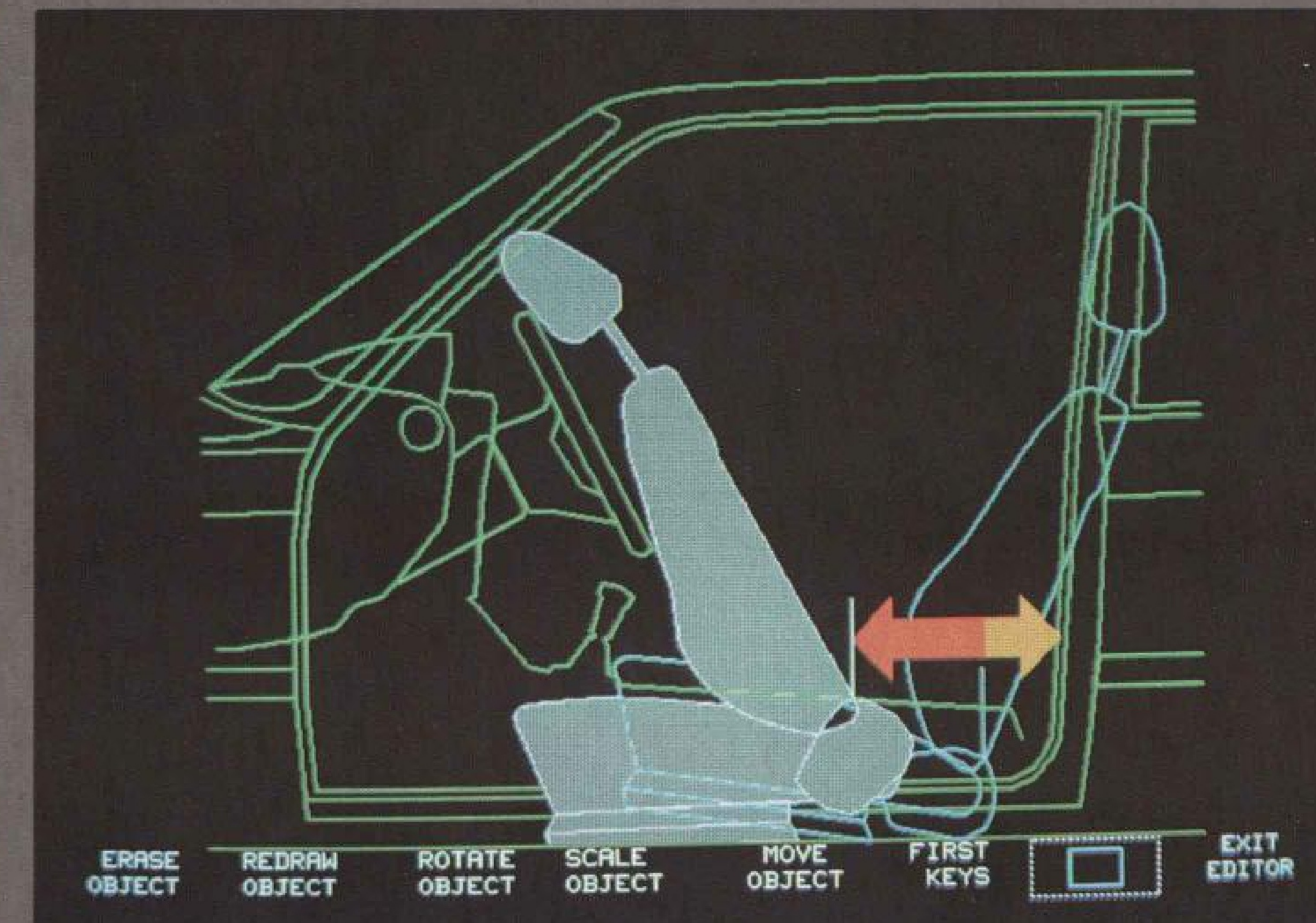
An economics lesson from your dashboard.

Set in the tachometer of the 318i is another BMW innovation – the Energy Control fuel consumption indicator – that may justly be said to teach practical economics. Unlike indicators that give mpg averages, the Energy Control gathers data from the fuel-injection and other systems to show exact gas mileage at a given instant. And this precise information helps you refine your style of driving to increase fuel efficiency and, ultimately, the overall economy of the car.

Is a judicious burst of three-quarter throttle acceleration necessarily wasteful? The answer displayed on the Energy Control's dial varies depending on conditions of wind, road, and load, but you'll discover it can contradict popular belief. You should also find that shifting early into higher gear is quite economical, and soon be spotting many opportunities to save with the often-neglected fifth. Which makes the Energy Control an effective driving instructor as well.

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INSPECTION



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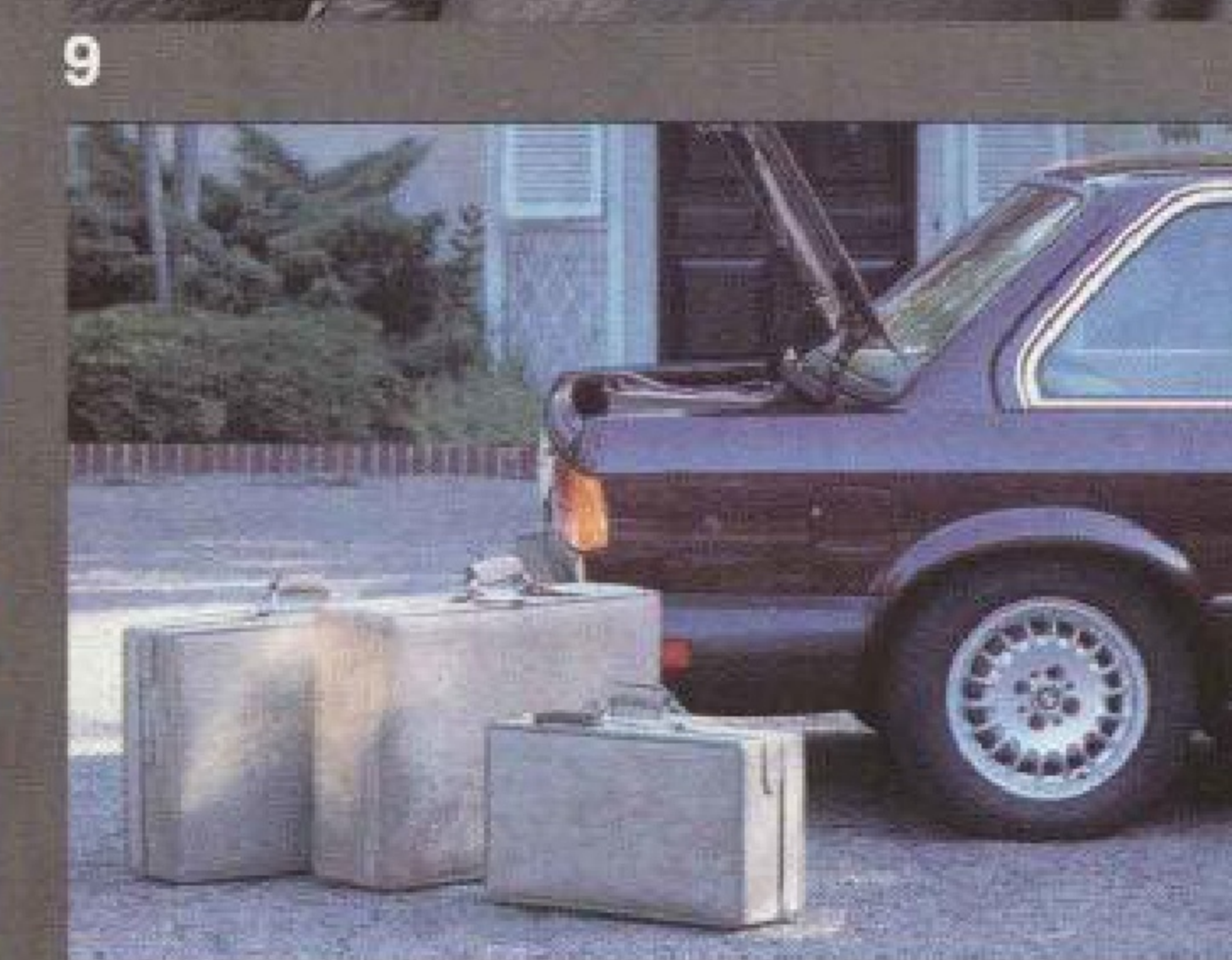
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The 318i features extremely comfortable orthopedically-designed spring-cushioned seats, with recessed safety-belt buckles (1). A schematic drawing of the front seats shows how the seat slides forward on a track to allow passengers easy access to the back seat (7). The base of the central console is surrounded by a padded sleeve, and contains the controls for the optional power windows (8).



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Both outside rearview mirrors (2) are electrically adjustable. To activate them, the driver merely presses a switch conveniently located in the arm rest of his door (3). Just a few turns of the hand-operated steel crank cause the optional sunroof (4) to glide smoothly open or closed. For added safety and convenience, all doors, trunk, and gas filler flap can be locked or unlocked from the driver's seat, thanks to an optional central



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11
locking system. Seats upholstered in fine, supple leather are available as an option (9). The roomier trunk (10) is an asset whose merits will be obvious to vacationers and sports enthusiasts.

One of the few interiors not left to the whim of a decorator.

The engineers of the Bavarian Motor Works did not invent the phrase "form follows function." But, say the editors of *Motor Trend*, "Among all of the world's automakers, BMW is perhaps the foremost practitioner of the philosophy." The interior of the 318i substantiates this rather flattering tribute. For just as the exterior is uncluttered by fanciful air scoops and the instrument panel is free of mysterious trivialities, there is nothing here that does not contribute meaningfully to performance, safety, or comfort.

In a BMW, even the seats are high-performance.

The 318i's separate front bucket seats are so thoroughly adjustable in height, headrest, and back angle that it is all but mathematically impossible not to find a comfortable position. A comfort that endures even over long distances and in strenuous driving. Instead of being carved from blocks of foam rubber, these are spring-cushioned seats that let air circulate and carry off heat and moisture. The seats work in tandem with the suspension to provide even more comfort. Their springing and padding is designed so that their natural vibration frequency is different from that of the car itself—avoiding any "sympathetic" vibration of the seats. They offer orthopedically-sound lumbar and lateral support as well. Designed to counter driver fatigue that can become a serious distraction in an ordinary automobile. But just because BMW is "the driver's car par excellence," as *Town & Country* puts it, does not mean that passengers in the rear are treated as an afterthought. They too ride on spring-cushioned, individually-molded seats. Which they don't have to be contortionists to get into. Because the 318i's doors are accommodatingly wide. And when the back of the front seat is tilted forward, the whole seat slides forward to create entry room.

A safe interior should not be a design option.

Few would disagree that it is far better to outmaneuver accidents than simply to survive them. The 318i's extraordinary handling and performance help ensure the split-second control needed for the former. But its interior contributes significantly to achieving the latter, in case of the unavoidable. The inertia-reel lap-and-shoulder harnesses have been painstakingly tested. Catches are anchored at the side of the seats, so the belts are always well-positioned across the hips regardless of driving position. Further, many of the touches that look like tasteful refinements of design are

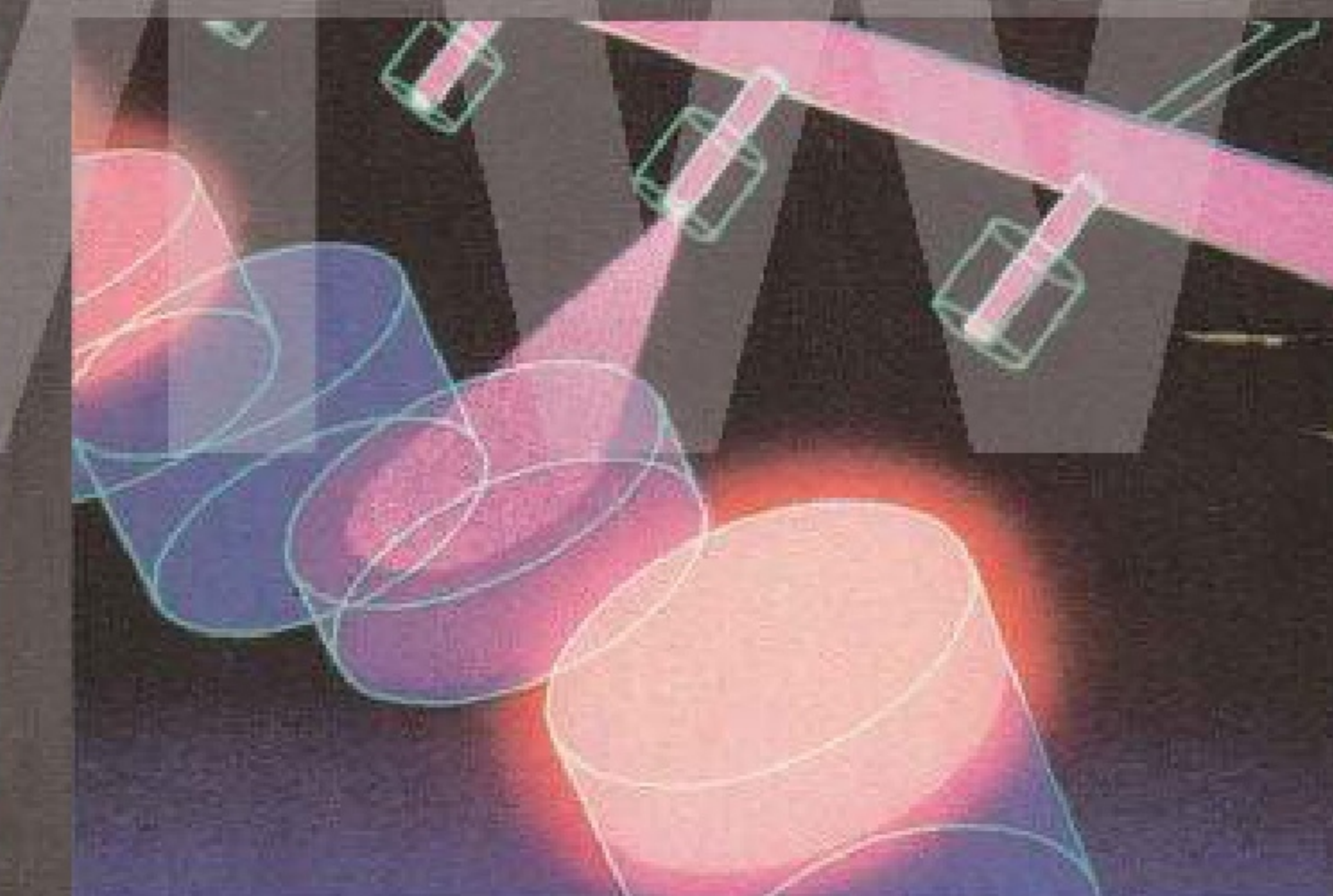
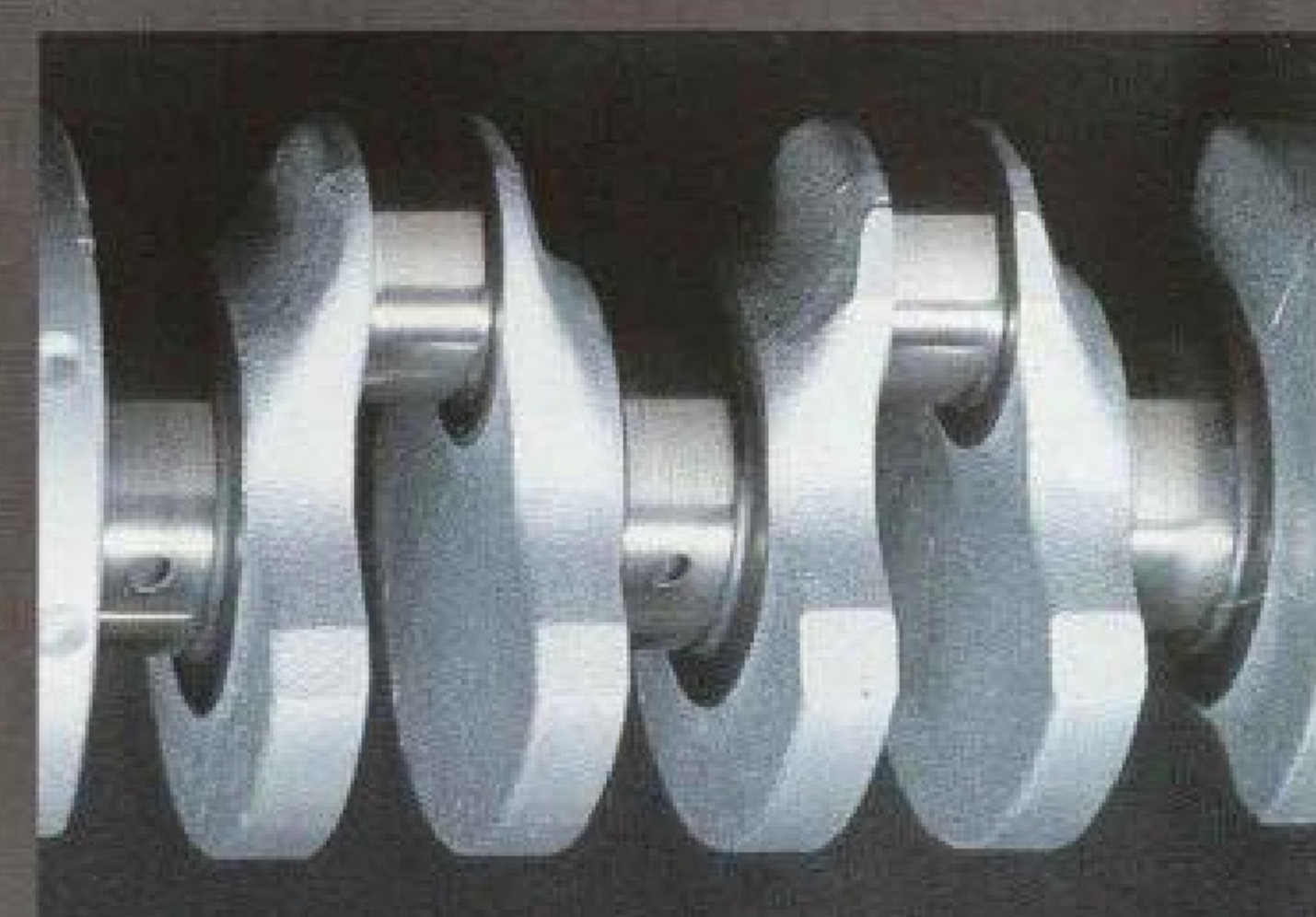
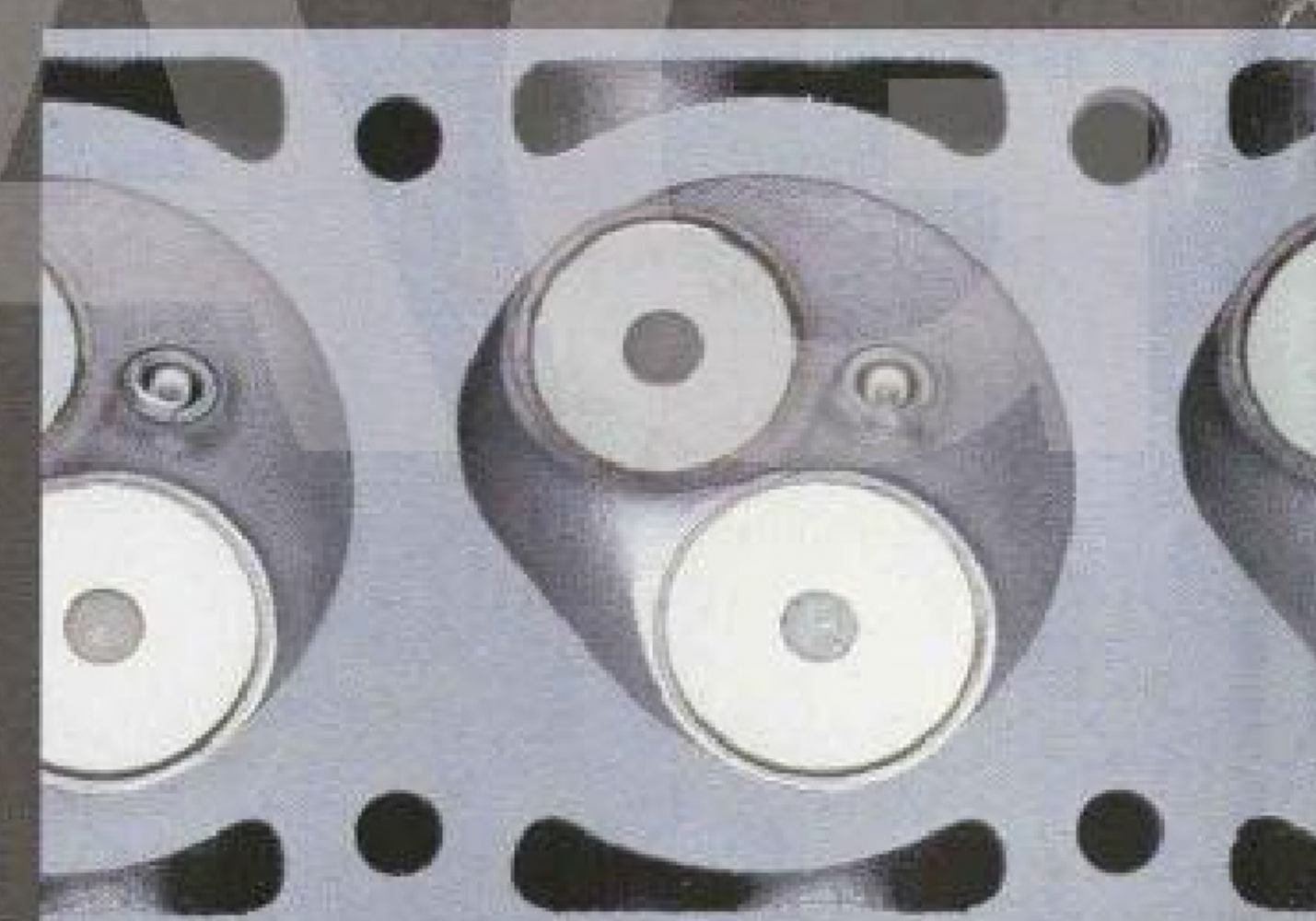
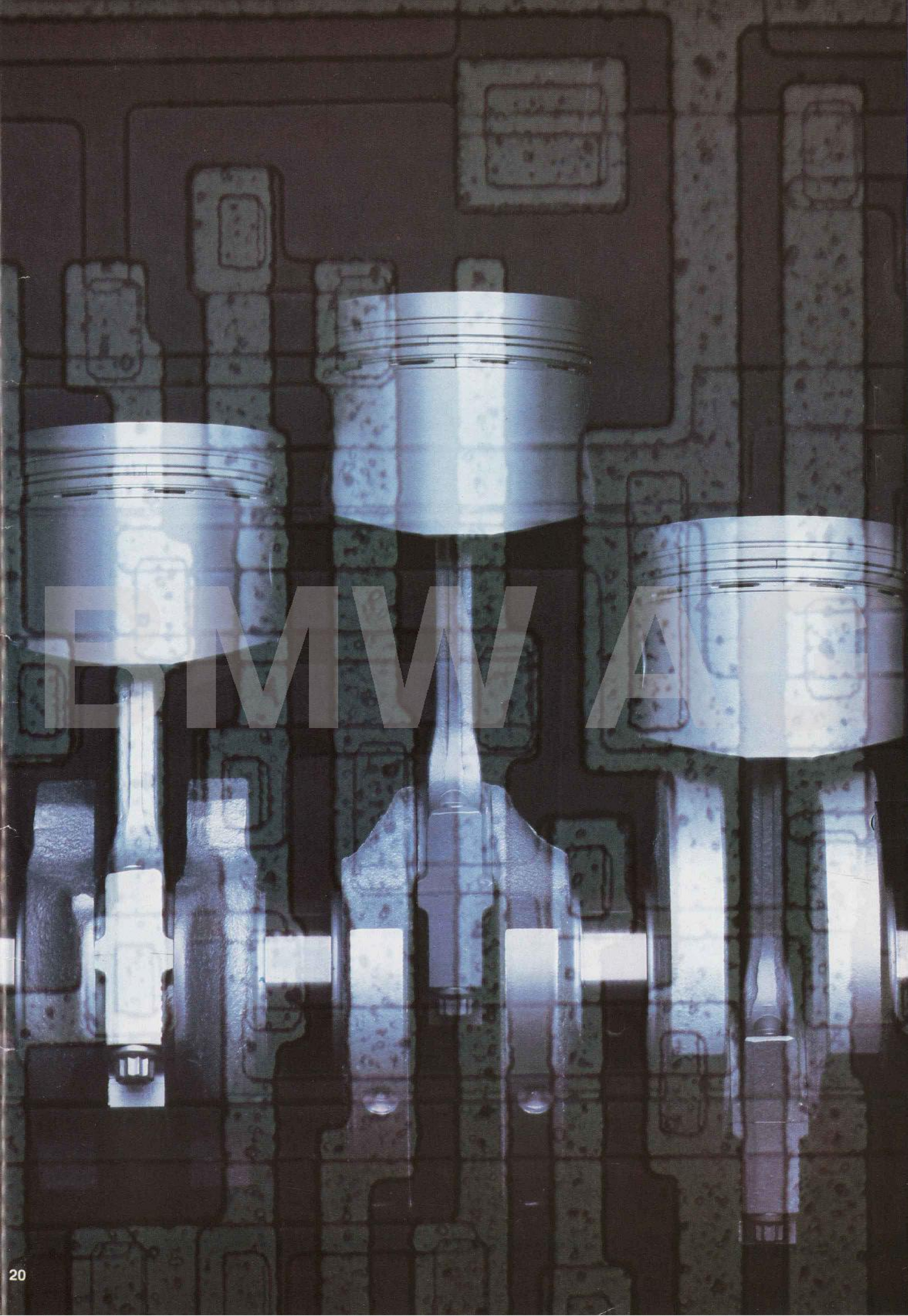
in essence refinements of safety. For example, potentially hazardous profiles and edges have been smoothed and rounded wherever possible and lined with impact-absorbing materials. So while the 318i features virtually every conceivable amenity one could sanely require of an automobile, its interior has nevertheless actually been designed to assist the driving process. Not hinder it.

The BMW 318i. The sports sedan with a genetic advantage.

Cars, like the people who drive them, are not born equal. And the 318i is a case in point. In contrast to new aspirants to high-performance status, it is the direct inheritor of advantageous traits acquired since BMW introduced the legendary 2002 sports sedan in the 1960's. More than that, it is the direct beneficiary of knowledge acquired throughout BMW's 60-year obsession with demonstrable engineering excellence regardless of the number of wheels involved. To those who know automobiles, BMW is synonymous with cars famed in international rallies and Grand Touring since the 1920's.

But BMW's achievements on land also include building the motorcycles that have set 187 world records and won over 700 worldwide events. BMW marine engines, esteemed by sailboat and yacht owners for their impressive power-to-weight ratios, have shattered world speed records too. BMW even figures in the annals of aviation, as the builder of the first six-cylinder high-altitude airplane engine. Followed by a nine-cylinder engine that produced an amazing 550 hp. Followed by the world's first production jet engine. An element in the 318i's genealogy that is alluded to by the blue and white stylized propeller emblem you see on its hood.





10 BMW's highly successful Formula One racing engine shares virtually the same engine block as the 318i (2, 3, 6). The hemispheric, swirl-action combustion chamber creates a remarkably efficient concentration of the air/fuel mixture around the spark (4). BMW engineers use sophisticated equipment such as the ultraviolet screen shown here (7) to pinpoint any excessive vibration inside the engine so that it can be analyzed and corrected.

A schematic diagram (10) illustrates the precision of the 318i's Bosch L-Jetronic fuel-injection system. The same computer that controls the electronic fuel injection also monitors fuel consumption (8), and displays that data on the Energy Control gauge (11). Thereby allowing you to adjust your driving habits for maximum fuel efficiency.

Five main bearings and four counterbalancing weights on the crankshaft



Under the hood of the 318i dwells an engine worthy of a BMW.

The 1.8-liter fuel-injected engine of the 318i has a significantly different heritage from those found in many of today's fledgling performance cars. For while the auto industry has been variously churning out power plants for the ballyhooed Big Car, followed by the Small Car, the Fuel-Efficient Car, etc., this engine has been quietly evolving on the great racetracks of the world.

Indeed, its heart – the engine block itself – is virtually identical to those of the BMW-powered cars that dominated Formula Two racing for over a decade and now share in Formula One victories as well.

This breeding is reflected in its combination of the seemingly incompatible:

Efficiency, economy, reliability, and extraordinary performance over a wide range of driving conditions.

The higher the technology, the higher the performance.

The 318i's engine incorporates many purely mechanical improvements, to be sure.

Its pistons have been lightened significantly to help reduce vibration and power losses. To reduce friction, valve-spring tension was lowered and new camshaft bearings were developed.

Other mechanical refinements include lighter crankcase and gearbox castings ribbed for stiffness and noise reduction, as well as a viscous-drive fan clutch.

These refinements work in concert with other significant improvements of a far more technological nature. In particular, the Bosch L-Jetronic electronic fuel injection.

With frugal exactitude, the L-Jetronic meters fuel to the cylinders through tiny nozzles in accordance with the quantity of air being "breathed" by the engine.

It determines the engine's instantaneous fuel requirements on the basis of information from its airflow meter and the Lambda sensor measuring oxygen content in the exhaust stream. The hemispheric, swirl-action combustion chambers concentrate the resulting mixture of fuel and air around the spark in a remarkably efficient manner. Developing extraordinary power from small displacements.

A transistorized, breakerless ignition system maximizes ignition performance and minimizes maintenance.

While improved cylinder heads and pistons further improve combustion and thermal efficiency.

All in all, the result is to extract even more willing performance from an already willing engine.

Driving pleasure that is not at the expense of the planet.

The 318i's engine clearly takes into account man's need to conserve dwindling resources as well as his desire for automotive exhilaration.

The L-Jetronic injection system makes yet another contribution to this dual goal by shutting off fuel completely on the overrun down to idle speed.

The interests of ecology are additionally served by a three-way catalyst working together with the Bosch-developed Lambda sensor.

When the Lambda sensor gauges the oxygen in the exhaust and helps determine the right fuel and air mixture for optimum combustion, it does it so precisely that the catalyst can control pollutants without the encumbrance of an air pump, thermal reactor, or EGR system.

The result is a car that refuses to fulfill gloomy predictions that an automobile cannot be built to meet the demands of the 1980's and still be worth driving.



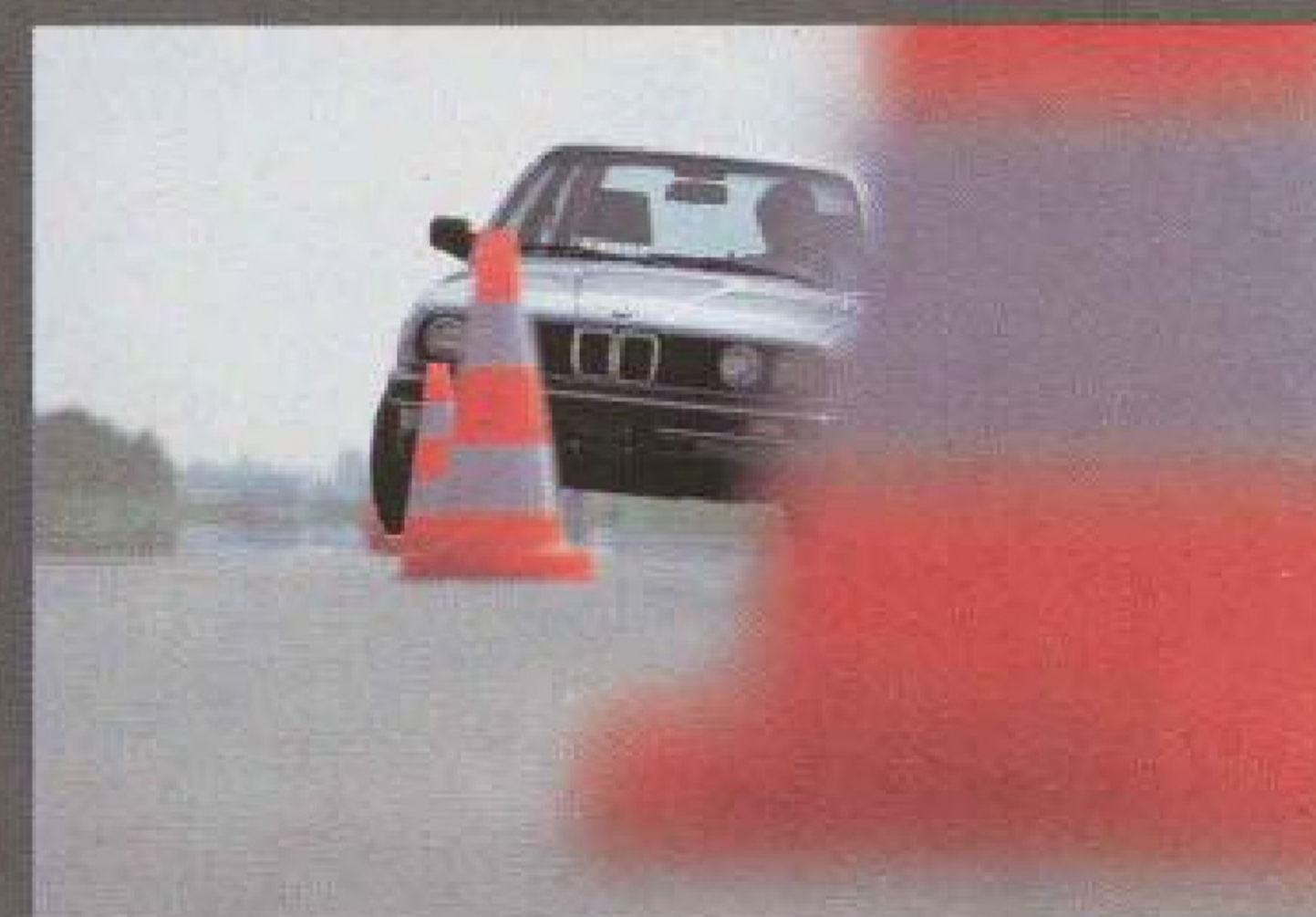
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The 318i's front suspension (7, 9) employs new sickle-shaped lower suspension links that reduce steering-wheel disturbance over minor road irregularities while increasing control over larger ones. Its compact geometry also allows more room for larger front brakes. The rear suspension (8) features a re-designed axle with semi-trailing arms mounted at 15° to help promote stability under heavy braking, and



4
to minimize toe-in and camber change during tight cornering. Voluminous amounts of technical and physical research contribute to the suspension system. It has been perfected on racecourses (2, 3, 4), where precision is crucial and agility and durability are more than just matters of theoretical speculation. The front disc brakes (5) on the 318i have been enlarged to keep pace with its engine.

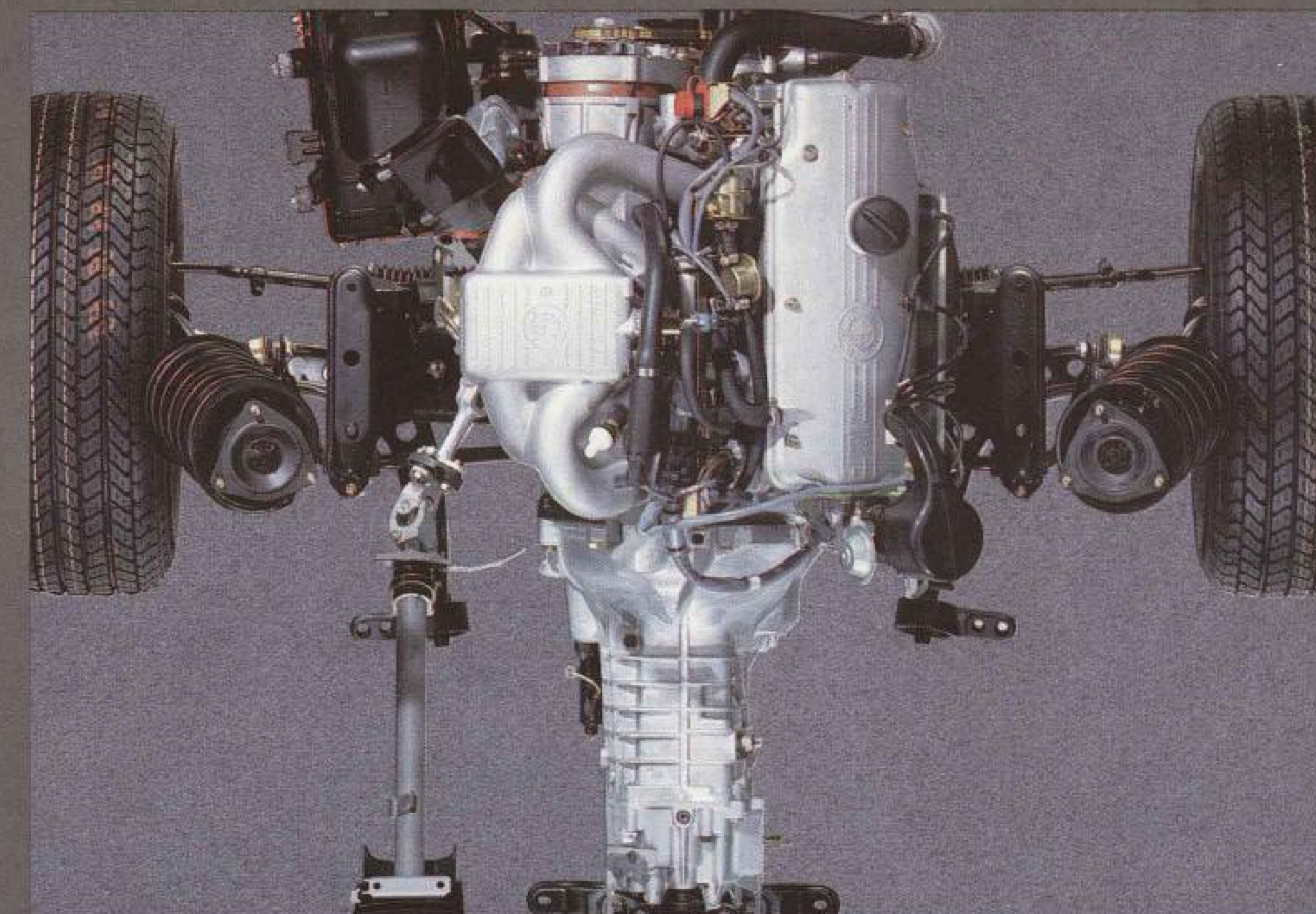


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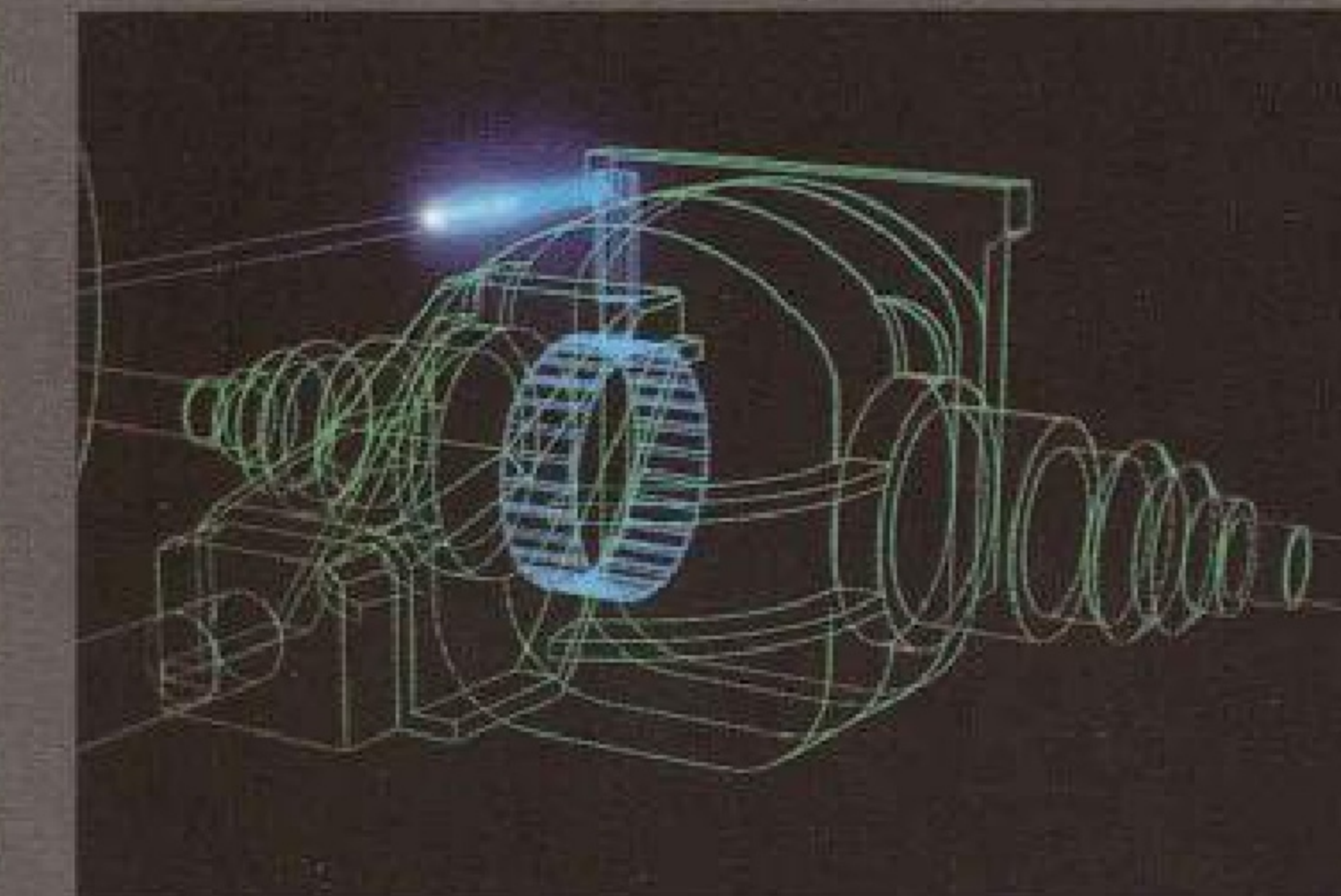


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BMW made extensive use of holography in the development of its light-weight differential housing (10). Light alloy wheels (6) help enhance the car's handling through their reduction of unsprung weight.



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A suspension evolved on the racecourse rather than in the computer.

It is not entirely surprising that the 318i's suspension should offer handling and road-holding that *Car and Driver* calls "magnificent." For while BMW's use of computer-equipped laboratories is extensive (to make an understatement), its engineers ultimately rely more on insights gained in other places. Places such as Monza, Hockenheim, and the Nürburgring. On the racecourse, superior precision is crucial and agility and durability are more than just matters of theoretical speculation. Cars must perform, and keep performing, under unusual and often unfavorable conditions. The 318i's suspension, like the high-performance engine it complements, is a virtual syllabus of lessons drawn from this competitive arena.

Surefootedness under tortuous conditions.

The 318i's newly-designed front suspension results in an improved ability to "swallow up" small bumps in the road while helping to increase the driver's control over larger ones, as well as improving stability under heavy braking. Also improved is the suspension's ability to move automotive editors to near-poetry.

"...a beautiful suspension it is," pens L.J.K. Setright in *Car*, "not just in its motions but even in its appearance. There is a daintiness... that shows how material can be used to maximum advantage while being limited to minimal mass."

Combine this with the refined semi-trailing arms and separated coil springs in the rear, and the result is a system on which performance claims ride with impunity.

Technicians may nod with approval at the 0.93 g it achieves as a skidpad transient, but you should be impressed by how it keeps you in control on the most serpentine roads.

The handling caters neither to uninspiring understeer nor cantankerous oversteer.

Each wheel adapts itself independently to every driving and road condition up to and including bumps and potholes. With a smoothness and precision that will spoil you for any other car.

At the same time, the suspension keenly picks up and translates into civilized terms the "road feel" essential to proper control.

And for all its elegance of design, it has the resilience and strength to endure the vicissitudes of high-performance driving.

The 318i's new suspension also makes possible several improvements to which it is strongly attached: Its new 14-inch wheels and larger front-disc brakes.

The wheels are outfitted with tenacious low-profile 195/60 HR14 radial tires which allow better lateral acceleration and cornering. The brakes – cooler running, and assisted by a brake-booster for more precise control – are described by *Car and Driver* as being, in a word, "lovely."

Together, they ensure the 318i of high performance in stopping as well as in going.

Why BMW exceeds safety standards instead of merely meeting them.

Picture if you will an automobile suspended nose downward outside the third floor of an office building.

Now picture it plummeting to the street below.

If this were an actual event and the car in question were a BMW 318i, it is true that there would be no driving away from the point of impact.

But amazingly, there would be no significant damage to the passenger compartment within.

A concern that predates the first bumper law.

The exceptional survival fitness of a BMW is, to be sure, more than a matter of its crashworthiness.

Its handling and performance characteristics help provide you with the split-second control necessary to avoid an accident in the first place.

To learn how to better cope with the unavoidable, however, BMW engineers were subjecting BMW's to test crashes, crushes, and rollovers before legislation made such sacrifices mandatory. Thousands of hours have more recently been spent at computer screens studying the results of such tests and creating design alternatives.

And today, BMW is among the select group of car makers that is not hesitating to go further and invest in costly laser holography for design research. In view of all this, it is not surprising that the 318i meets, and in many ways exceeds, the basic legal safety standards.

How the 318i's life-protection system works.

In real-world, horizontal equivalents of the nosedive imagined above, the initial impact is absorbed by the 318i's computer-designed "crush-zones" that buckle and crumple in a controlled, sequential manner.

The engine compartment and trunk area become, in effect, extra feet of bumper that protect the passenger shell through strength of logic as well as of material.

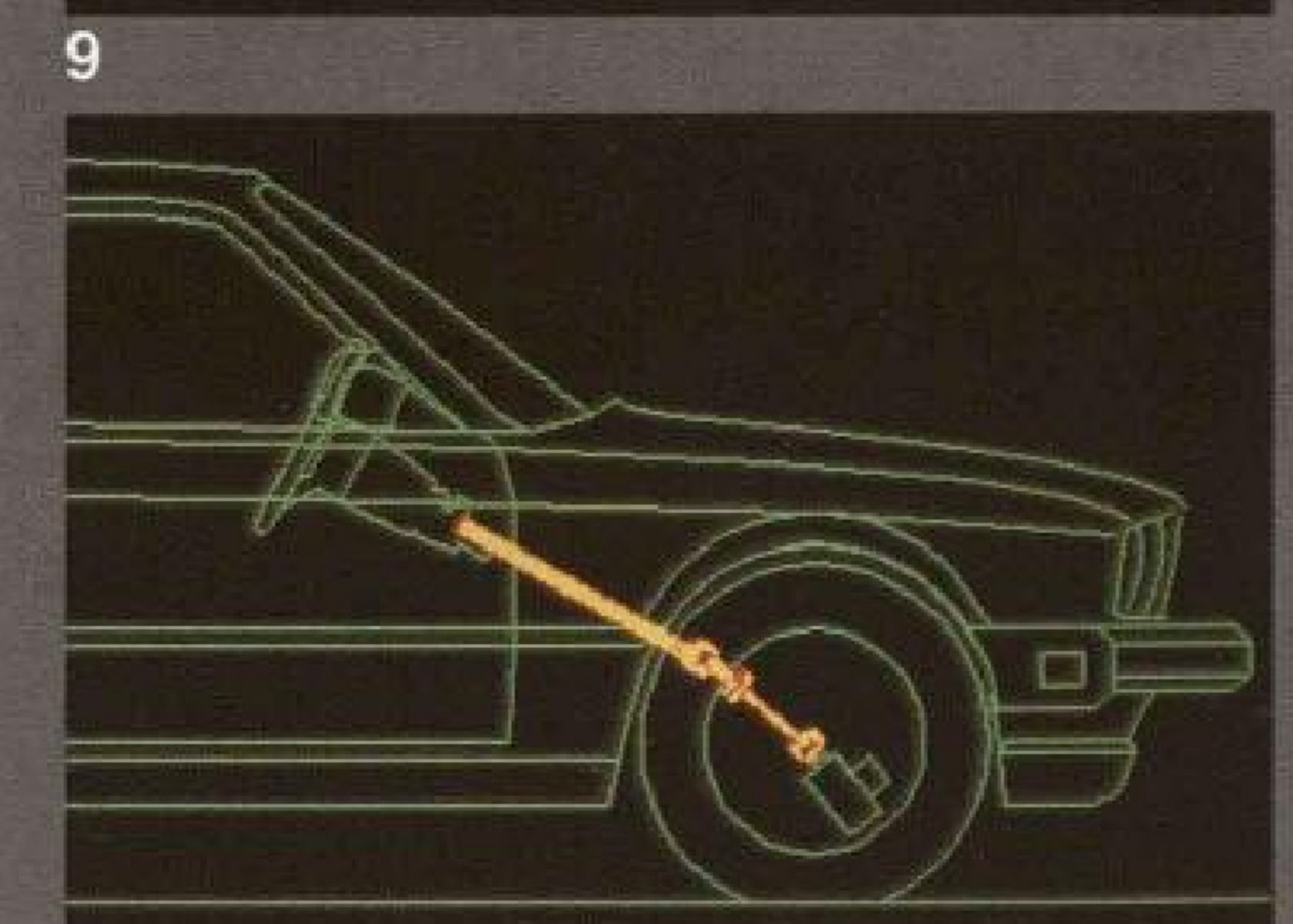
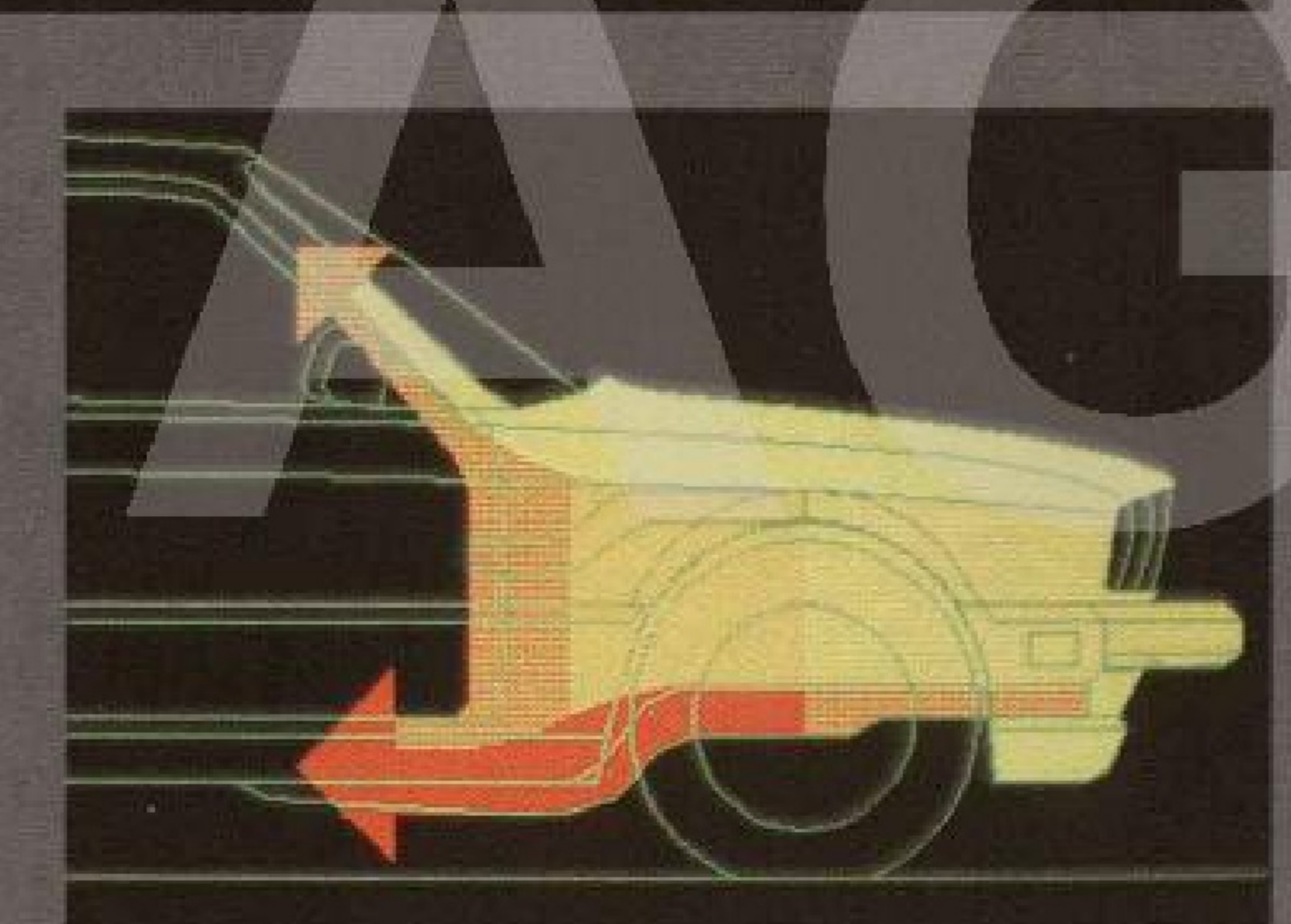
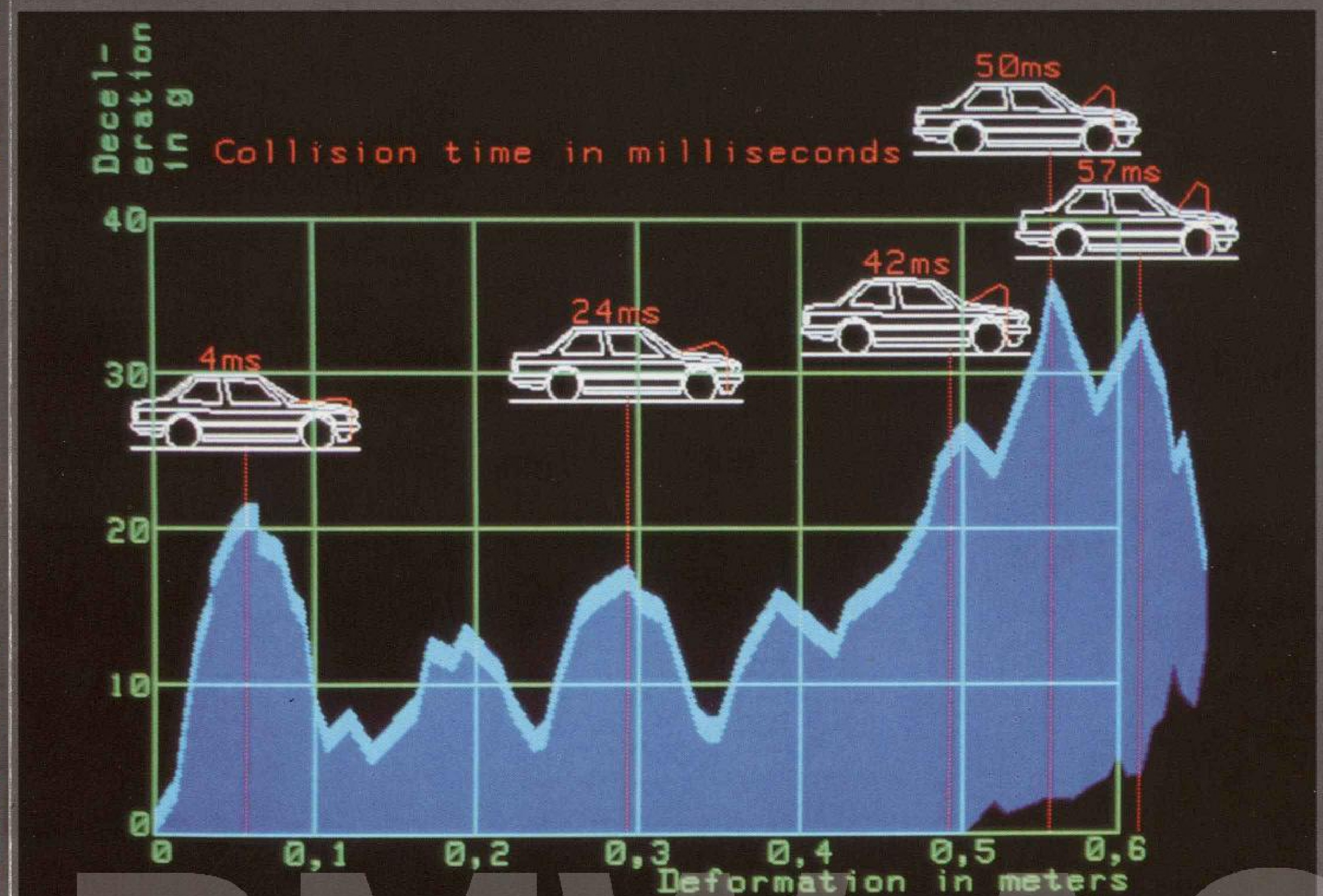
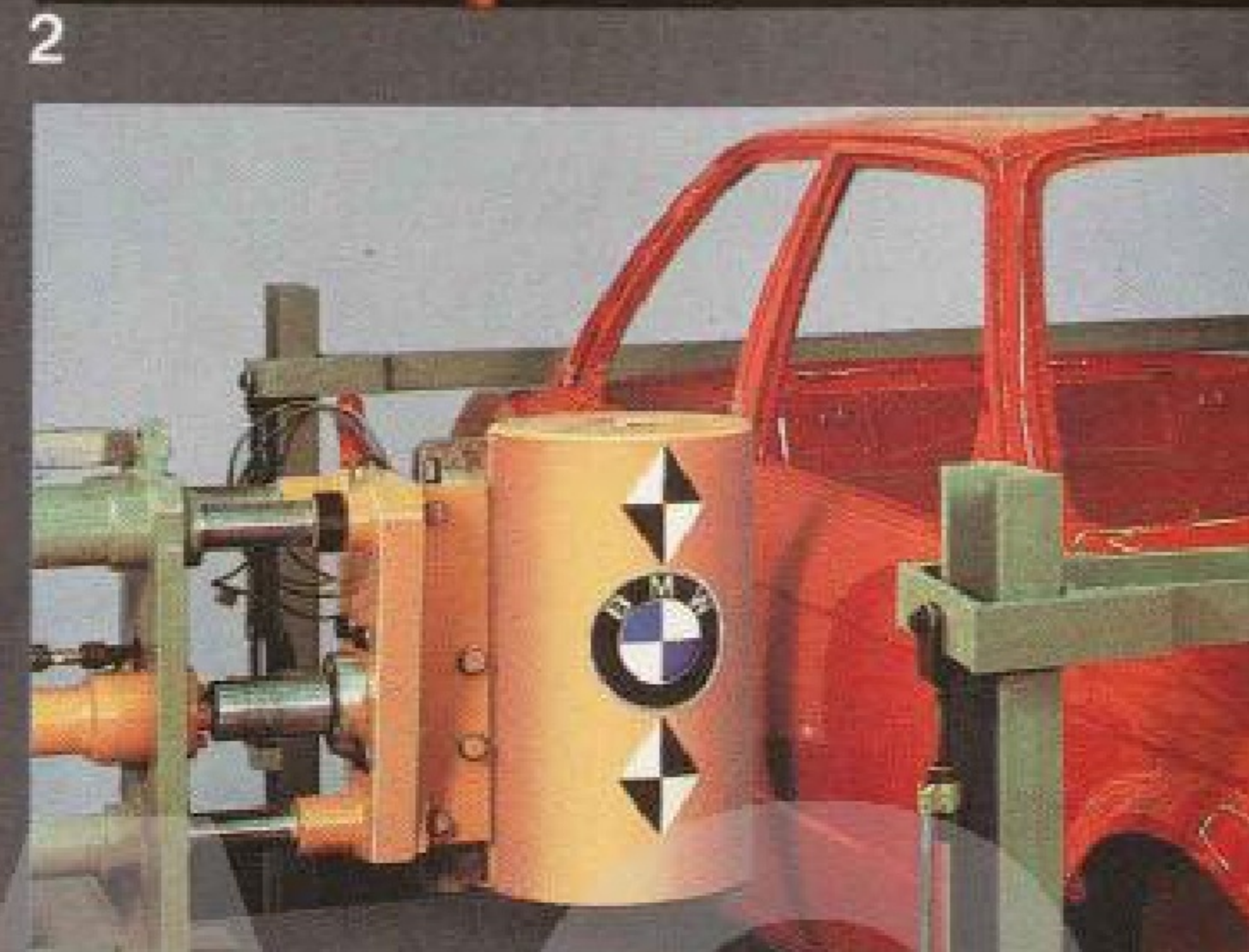
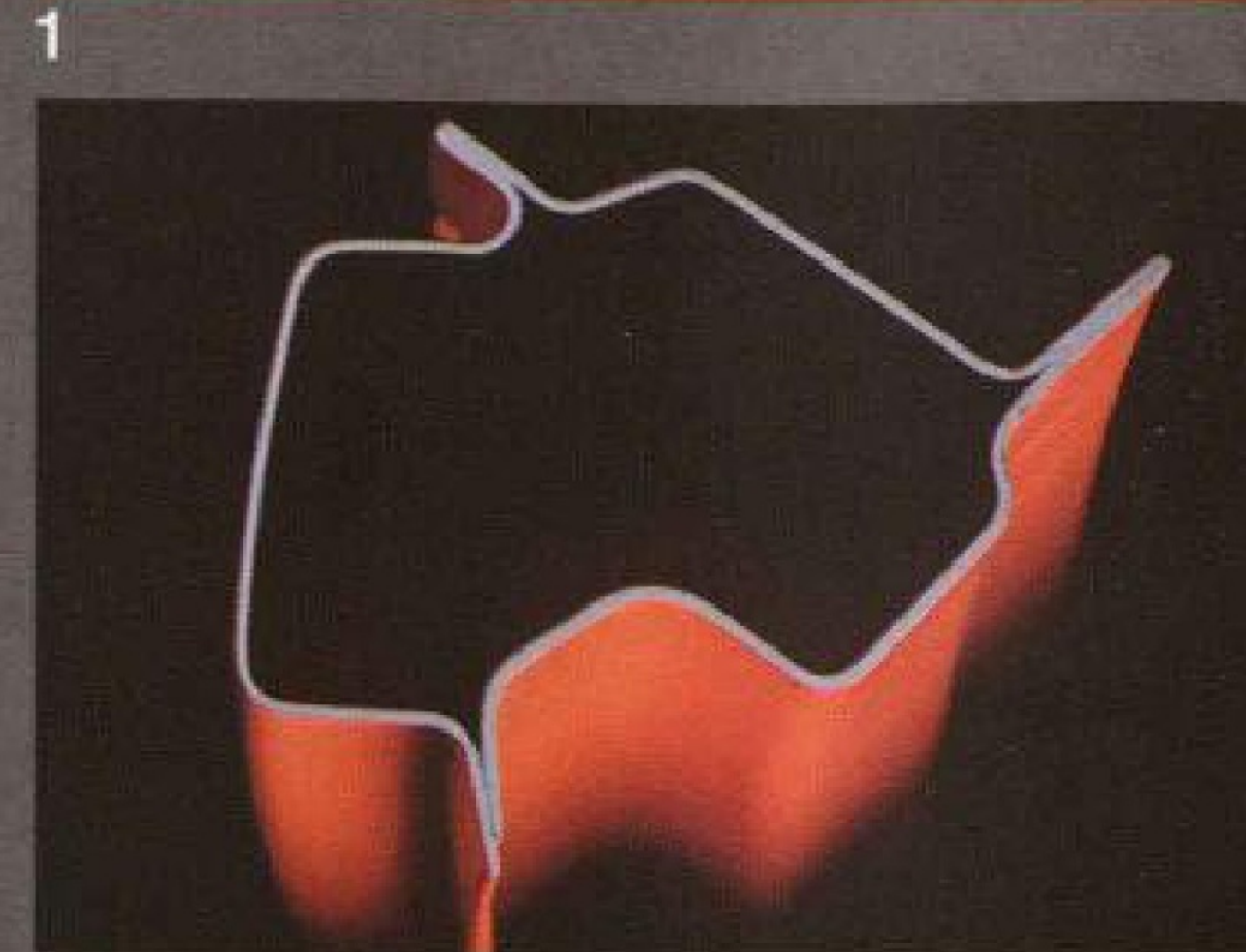
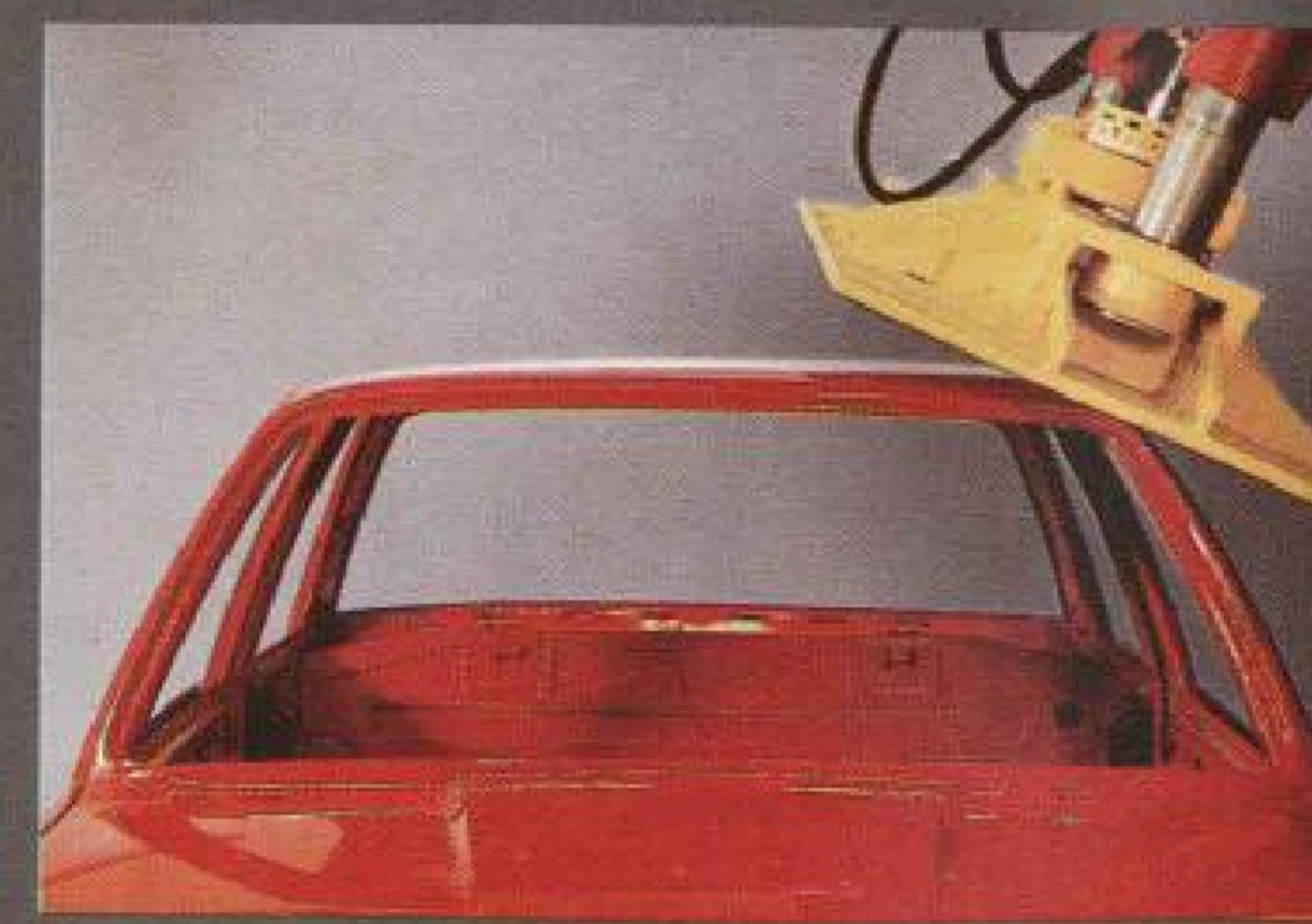
The passenger shell in turn resists the thus-diminished impact through a system of reinforcements on both sides, in the rear, and at the firewall. In case of overturn, extra-strong roof pillars and roof reinforcements lend further support.

And the soft, rounded dash and similarly refined appointments forgive impact, as does the padded wheel.

All of which enables the 318i to combine improved safety, among other sensible factors, with higher performance.

In a simulated roll-over, roof-pillar and roof-reinforcement strength are tested (5). For added structural integrity, the front and rear roof columns are specially profiled (2). The structural integrity of the side door is tested (3). The outer door handles are recessed, and all doors are equipped with safety locks (4). The stability of the passenger safety cell is tested during a lateral roll-over (1). The BMW body-testing facility is one of the most modern and innovative in Europe. Sophisticated testing equipment, like the example shown here, is used to "pre-program" the deformation of a 318i in a collision situation. The computer chart illustrates the functioning of the various "crush-zones" in a simulated 30 mph collision (6). Crash tests are used to optimize the deformation of the front and rear "crush-zones" (7). The steering wheel is situated well outside the "crush-zone," behind the front axle (9, 10). The front panel, seat-belt, and seat-belt anchoring points are all submitted to strength tests (8). The interior of the 318i is a steel passenger safety cell with specially-constructed roof pillars, reinforced front and rear windows with integrated roof reinforcements, cross struts in the instrument panel area and behind the rear seat, and rigid longitudinal struts (11).

The steering wheel rim is fully cushioned and the center pad is specially designed to help protect the driver in the event of a collision (12). The energy-absorbing instrument panel is subjected to repetitive impact testing (13, 14). To help ensure the durability of the energy-absorbing instrument panel, BMW engineers use computerized stress analysis (15). BMW complements its built-in safety design with a thorough system of hollow cavity preservation. Anti-corrosion protection is applied to areas susceptible to rust (16). To help ensure the durability of critical mounting points in the chassis, BMW uses special galvanized parts (17).





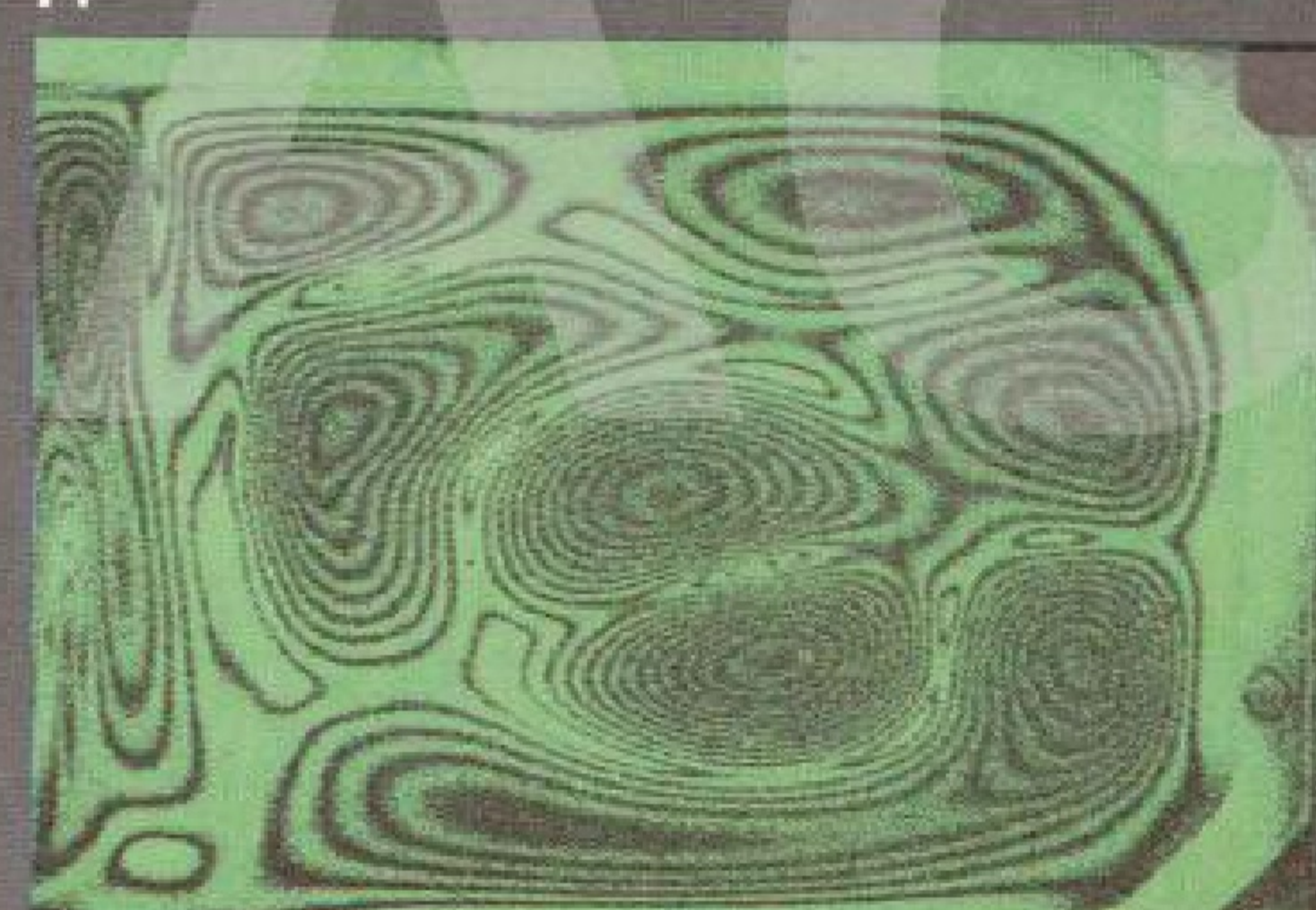
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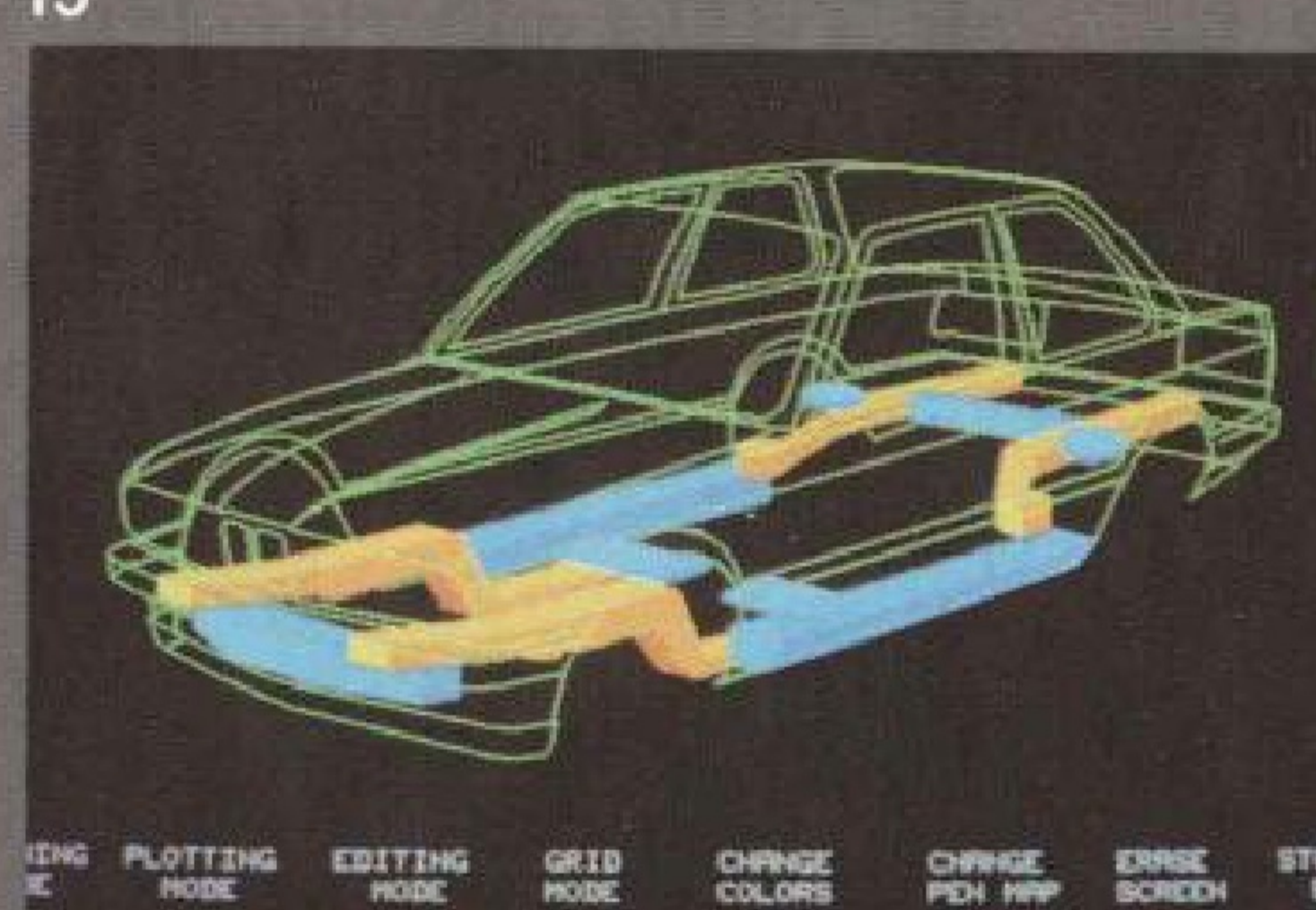
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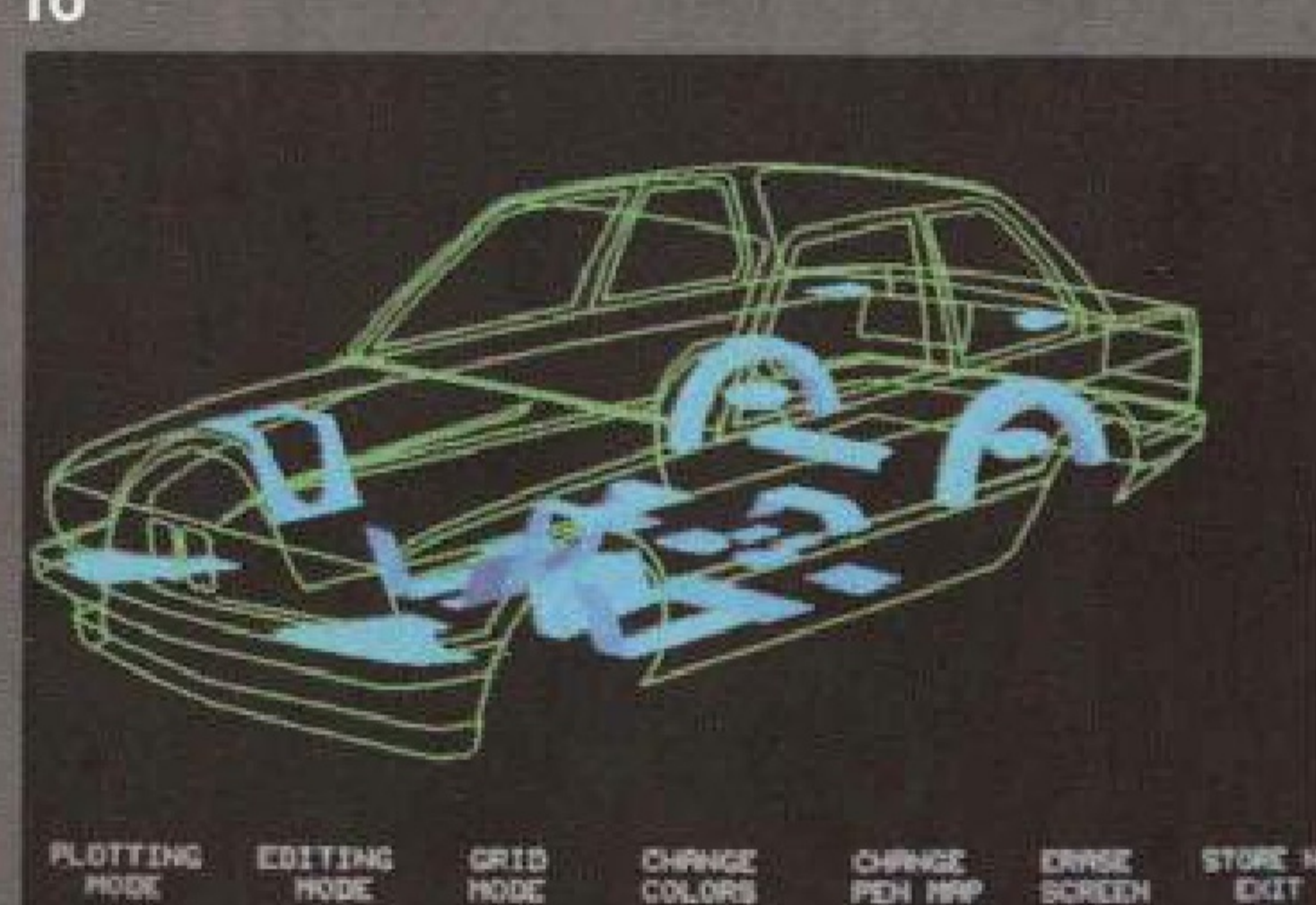
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15



16



17



**At BMW, quality is
a fact.
Not this year's slogan.**

The sloganeering for some automobiles seems to be rhetorical compensation for the quality that turns out not to be there. BMW, however, does not presume that you are willing to accept less if it is sweetened with image. Or that you have no memory of real quality. Or worse, that you do not respond to it when you see it. We build automobiles accordingly. A fact that did not escape the editors of Motor Trend: "The BMW's pieces just don't mesh and blend like those of ordinary (cars). There are no flaws, no bad joints, no runs in the paint, no stick-ons and no cover-ups. These are the details that keep coming back to reinforce the car's value every time you open a door, wash the car or just sit and look at it."

**BMW dismisses the
notion that good
enough is good enough.**

Over the past decade, many people have come to expect — indeed, uncomplainingly accept — less quality in every area of their lives. BMW rejects such acquiescence. With a vigor that has moved one leading automotive journalist to observe, "...when creeping mediocrity seems to be moving in on us from all sides, one gets the feeling that BMW will never let us down because with them, good enough is never good enough."

Robots for precision, not for speed.

BMW's obstinate insistence on quality begins with precision of design. Design proven in facilities like our Aerothermal Test Center, where sample components can be subjected to 75-mph snowstorms in the middle of July. But every particular instance of quality ultimately rides on the production line. So from 1980 to 1984, BMW is investing much of a nearly \$2 billion development fund in ultra-modern production facilities with robot welding lines of the type already used for the 318i. The task of such robots is not the spewing forth of adequate goods, but the controlled production of superior ones. This dedication to quality is so unwavering, in fact, BMW has gone so far as to incorporate mobile checking robots that actually inspect the work of their welder "colleagues." Even the power supply to the robots is monitored electronically. The result? Consider this observation by AutoWeek, who in previewing the 318i found it to be of "extremely high build quality, the seams, panels and doors fitting tightly and evenly — inside and out." Even after basic assembly, each BMW goes through a process of preparation that can only be called arduous. First, priming. A cathodic electrical dip bath that applies a 20-micron layer of corrosion-resisting primer to every cranny. Then cavity-sealing and undercoating. Then painting, hand examination, sanding, repainting. Until our inspectors are satisfied. And our inspectors are even more notorious perfectionists than our robots.

A precision reflected in our warranty.

At BMW, computers and electron microscopes have joined the traditional micrometer in an ever-more-precise pursuit of that elusive thing called perfection. So that each BMW will handle and perform in the same, predictable manner, each chassis is now measured and aligned to within a tenth of a millimeter. The front and rear axle supports must be no more than seven-tenths of a millimeter out of parallel. Engines must be assembled to tolerances finer than the thickness of this page.

Only after acquitting itself in the computerized electric-system checkout at assembly-line's end is a BMW worthy of the warranty many other car makers may rightly envy: BMW's 3-year/36,000-mile limited warranty and 6-year limited warranty against rust perforation.*

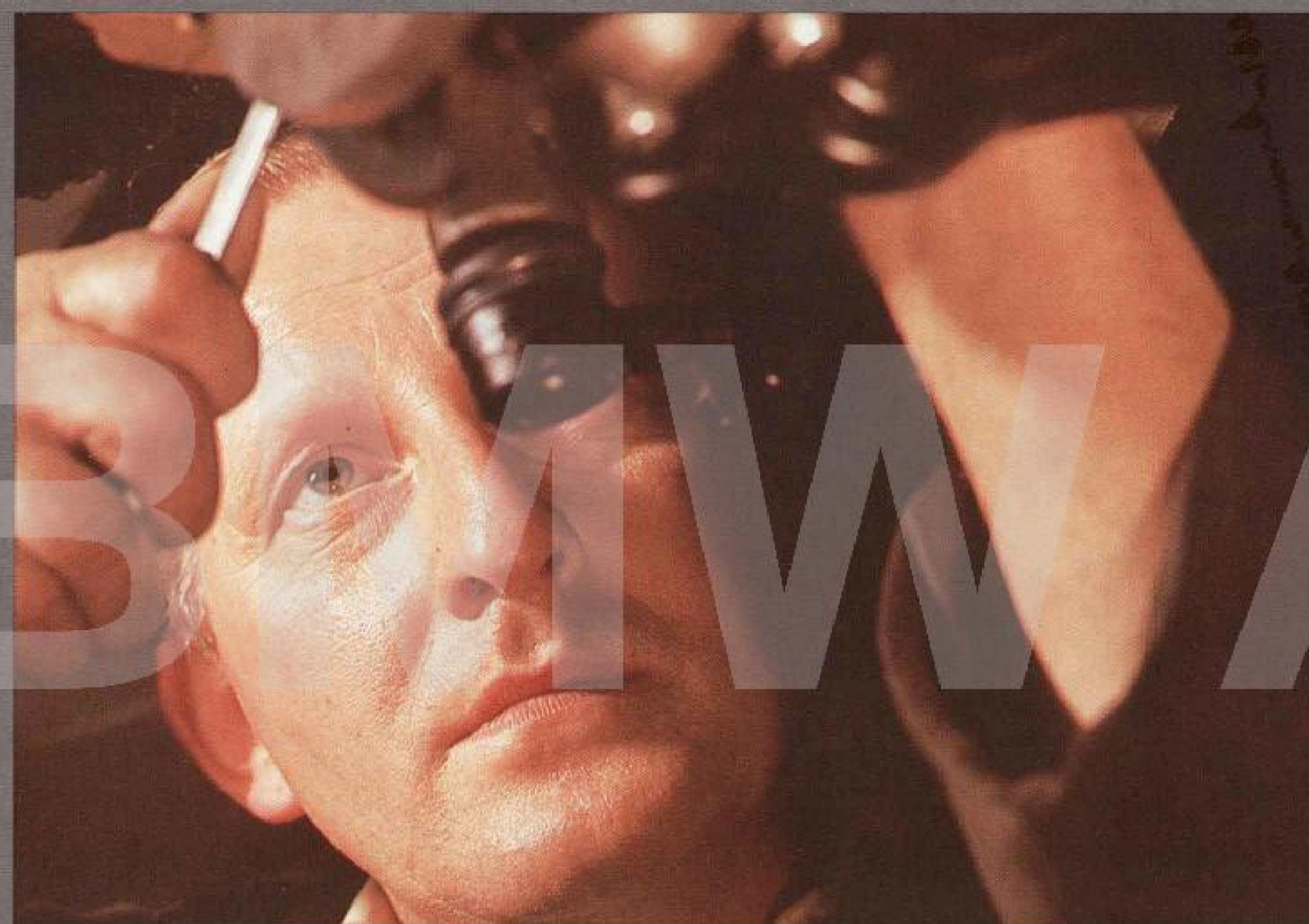
A car so meticulously crafted deserves to be meticulously maintained.

At BMW, we take the concept of service as seriously as we take our cars themselves. BMW service technicians undergo rigorous training. Consequently, they will have worked on many BMWs before they so much as touch yours. And they maintain their knowledge with yearly updates and ongoing courses at BMW training centers. They have tools specifically designed for BMWs and available only through authorized dealers. BMW service and genuine parts are available coast to coast in the United States — and in over 100 countries around the world.

*Warranty applies to automobiles purchased from authorized U.S. BMW dealers only. See your BMW dealer for details.



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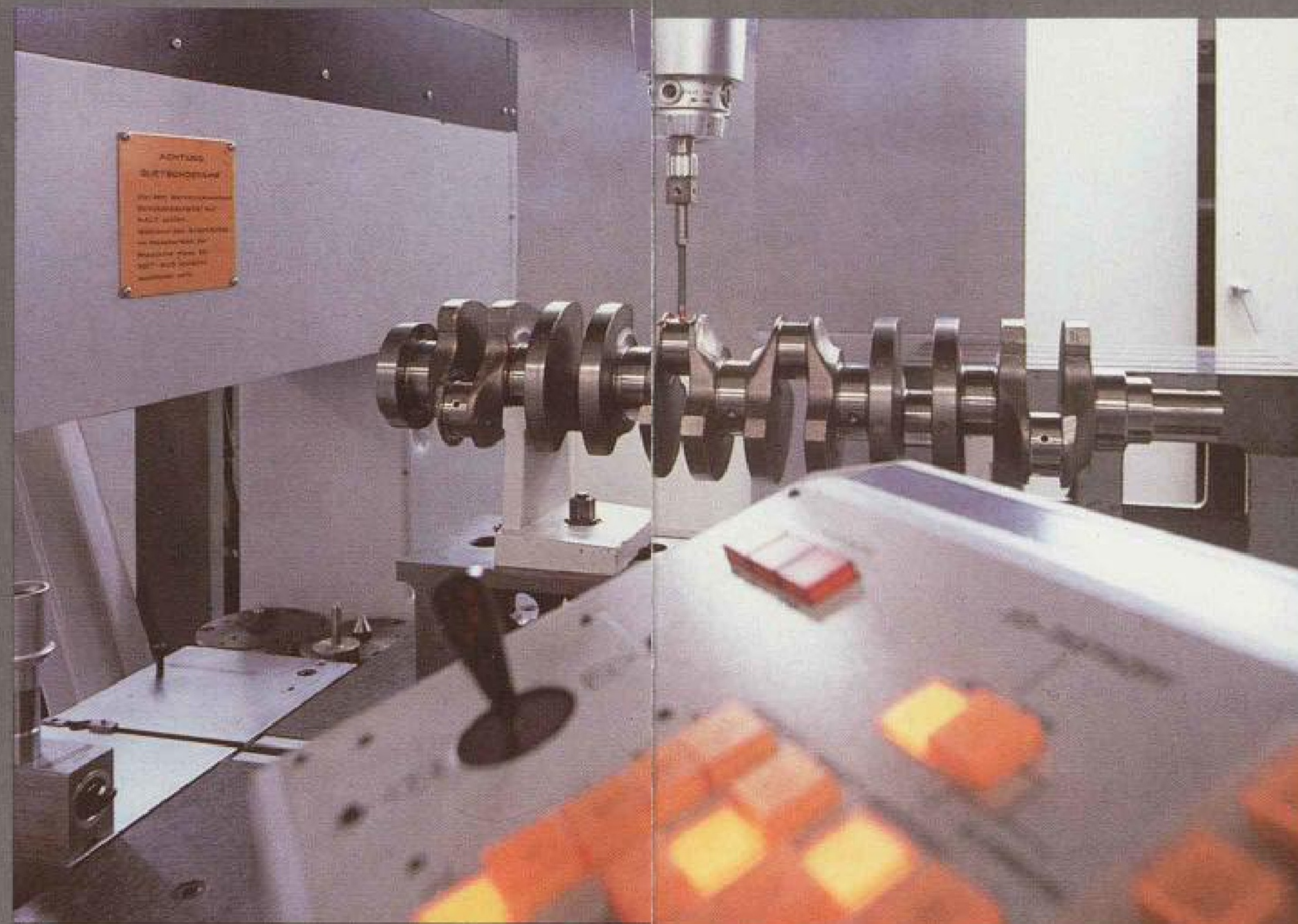
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The recessed windshield wipers on the 318i help contribute to its improved aerodynamics (1). A programmable coordinate-measuring machine monitors BMW crankshaft dimensions with an accuracy of 1/10,000th of a millimeter (5). Excessive noise and vibration are pinpointed and analyzed by this computer (9) during on-track testing of 318i prototypes. Steering stub axles are spot-checked

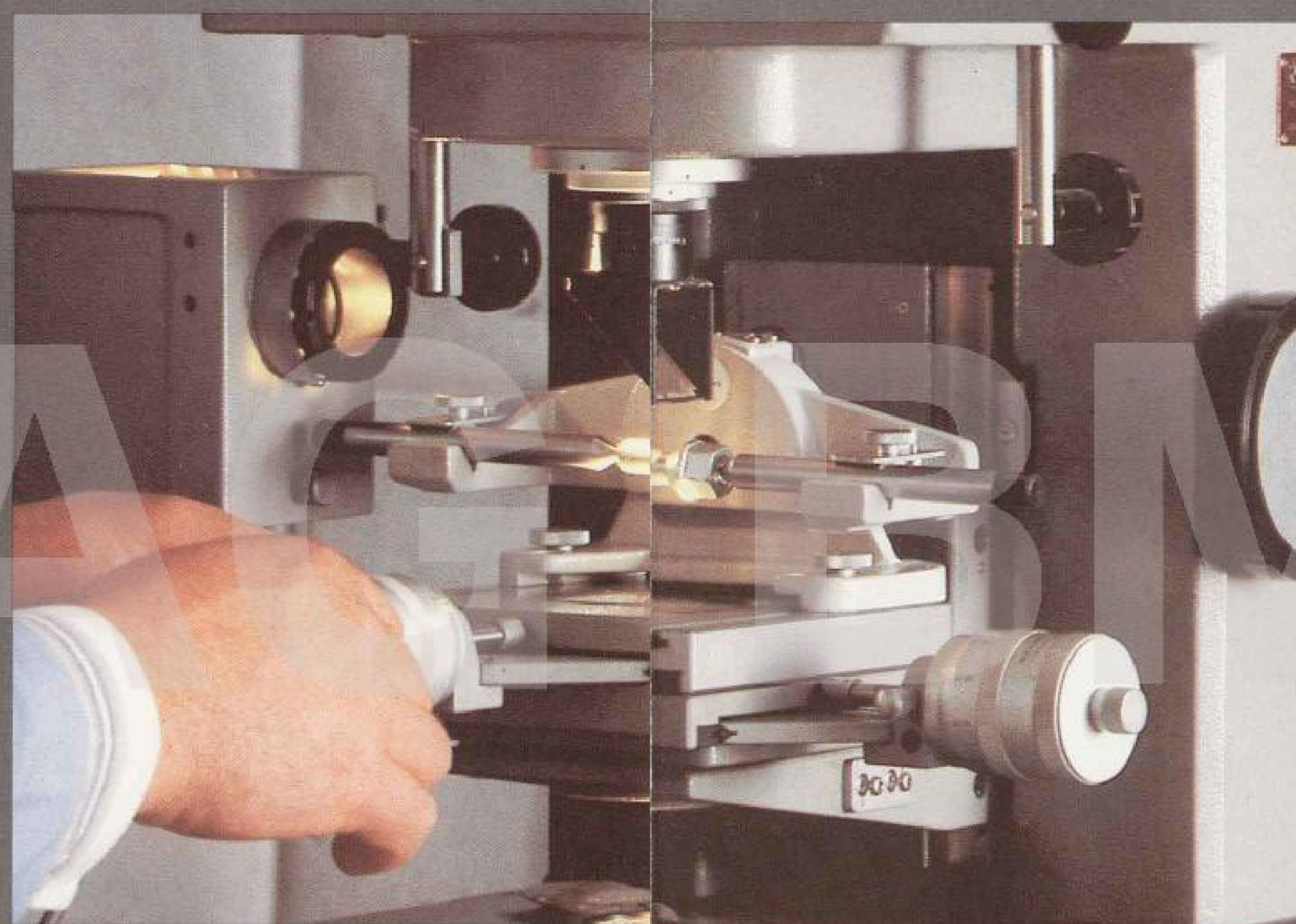


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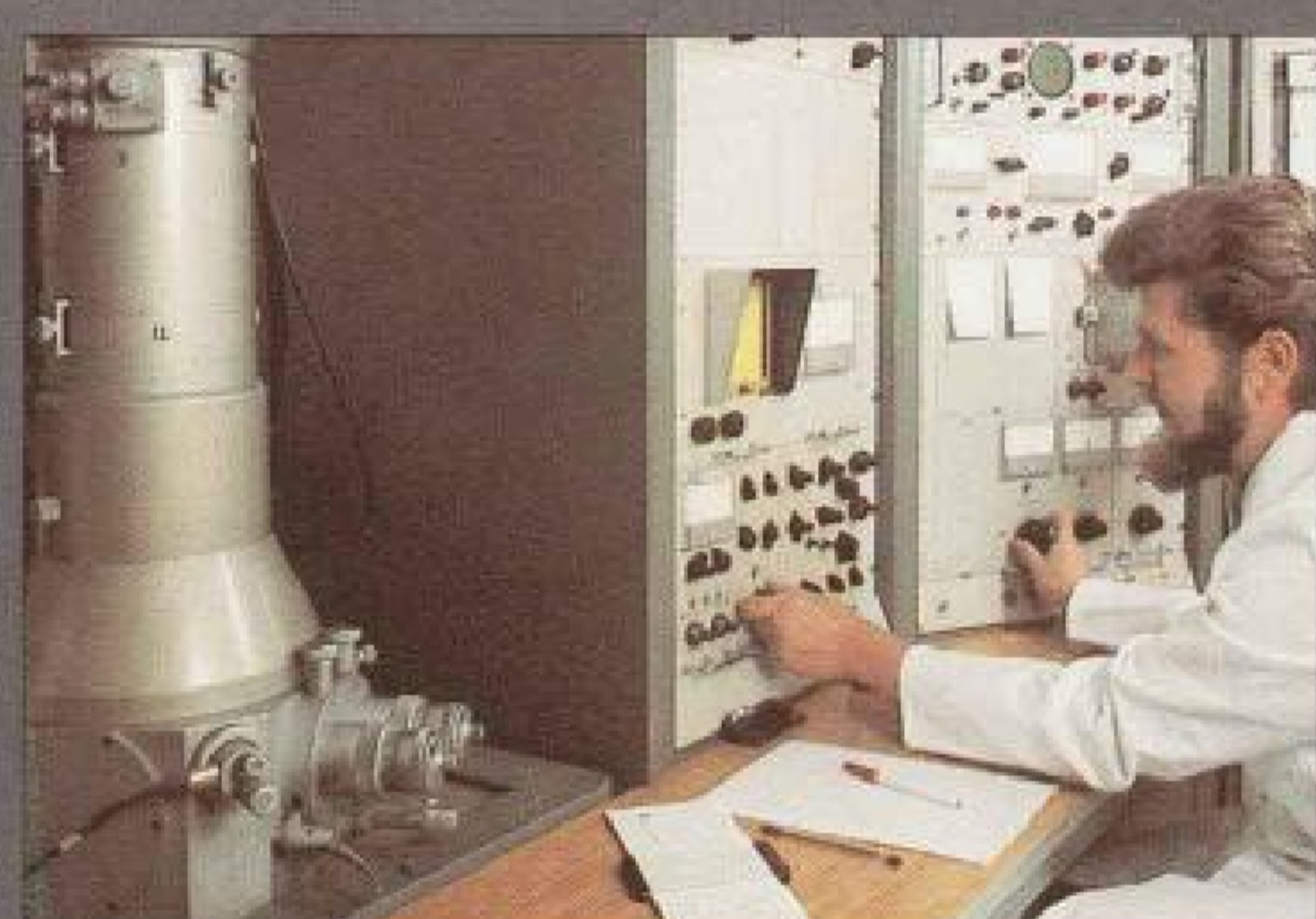
with a three-coordinate measuring machine (2, 8), which is capable of detecting manufacturing deviations of as little as 0.2 micrometers. Ultra-modern equipment such as a scanner electron microscope (6, 8) is used for thorough examination and testing of critical components. Front suspension assemblies are bench-tested for long-term durability and overall structural integrity (12). The BMW approach has always been



5

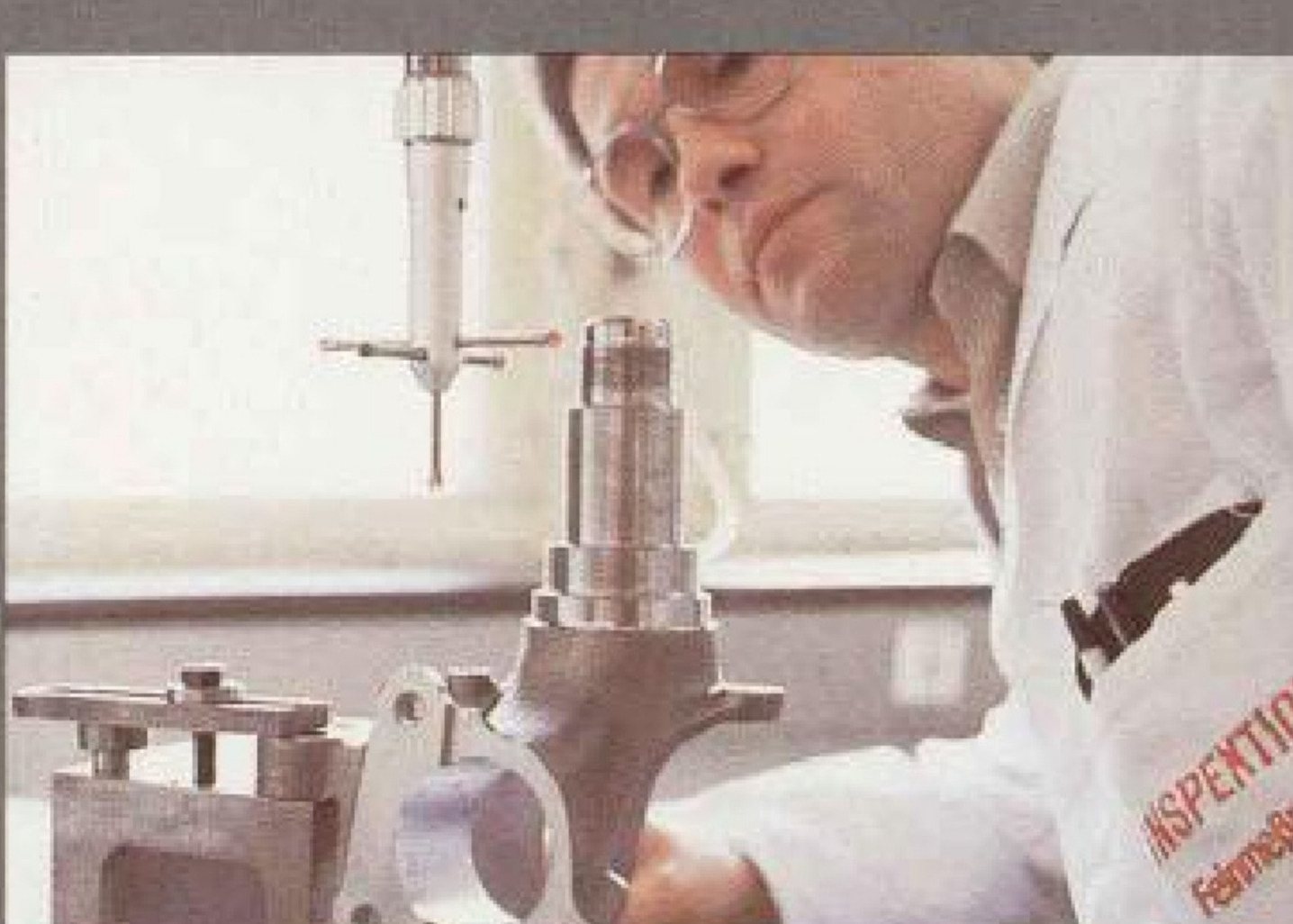


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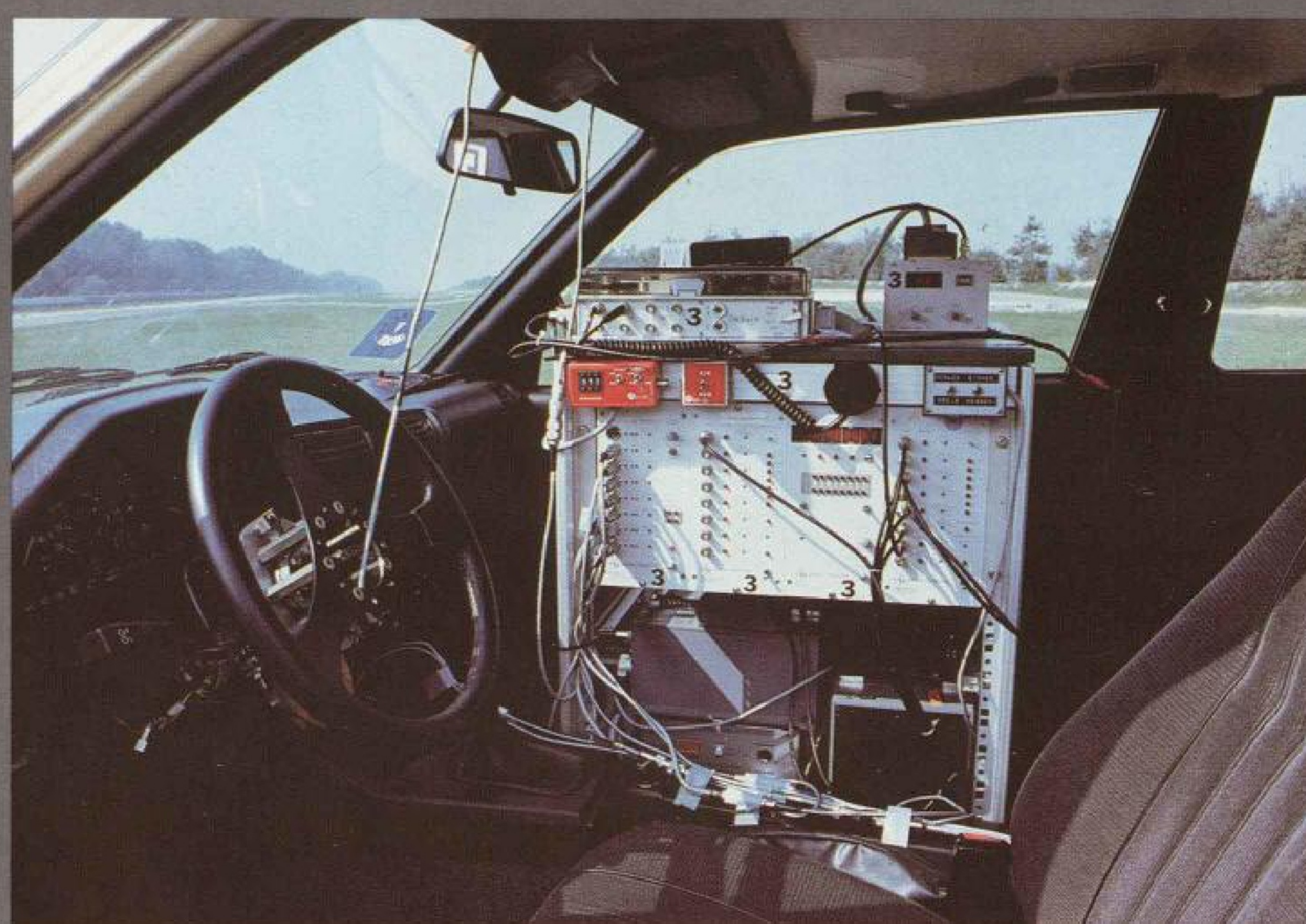
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to select not only the finest materials, but the finest craftspeople to shape these materials to our precise specifications (7, 8). BMW's commitment to quality is demonstrated by its mandatory training program for service specialists in dealerships all around the world. BMW currently employs 300 industrial robots (11) to help ensure much closer manufacturing tolerances. This in turn allows BMW to maintain a consistently

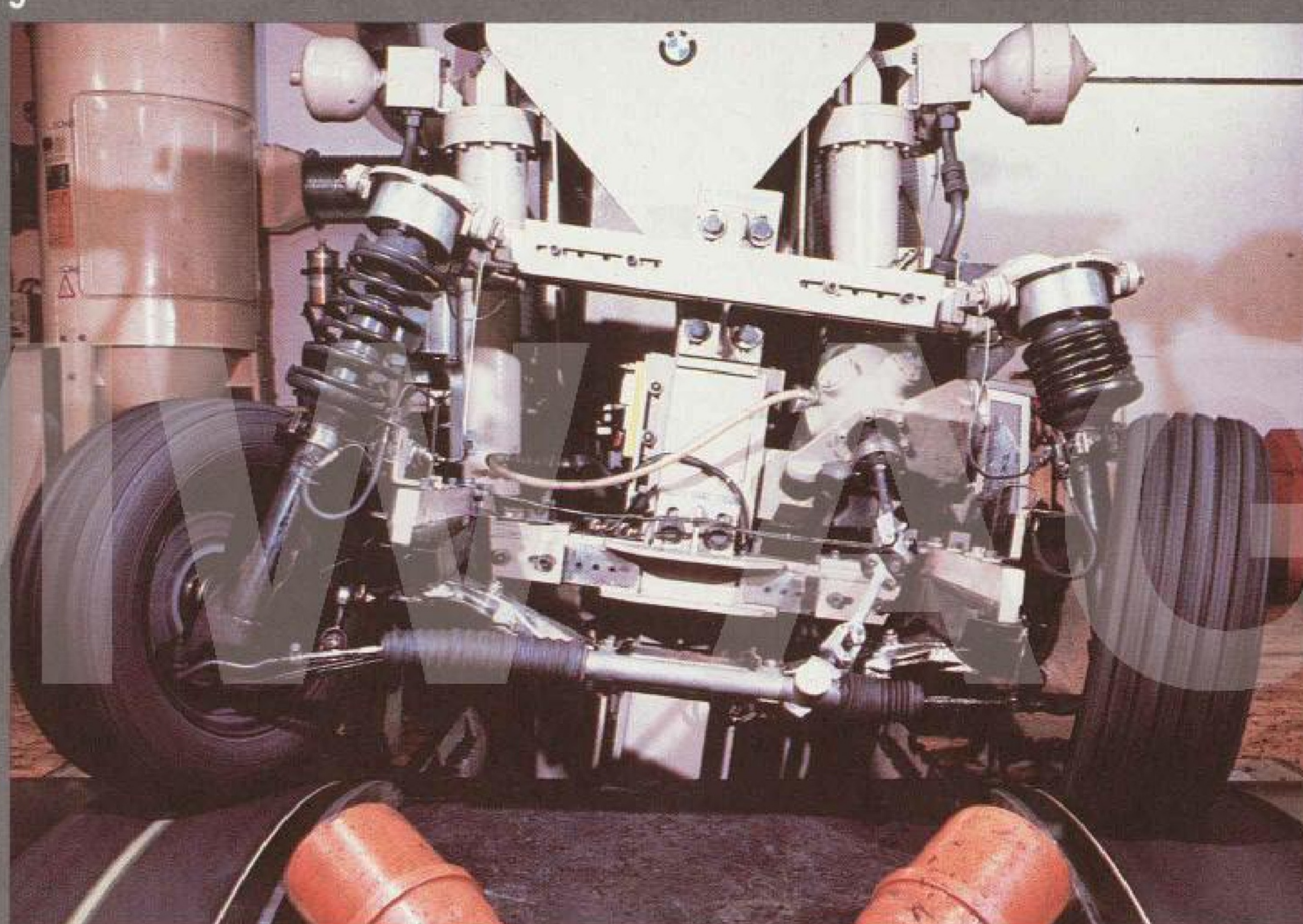


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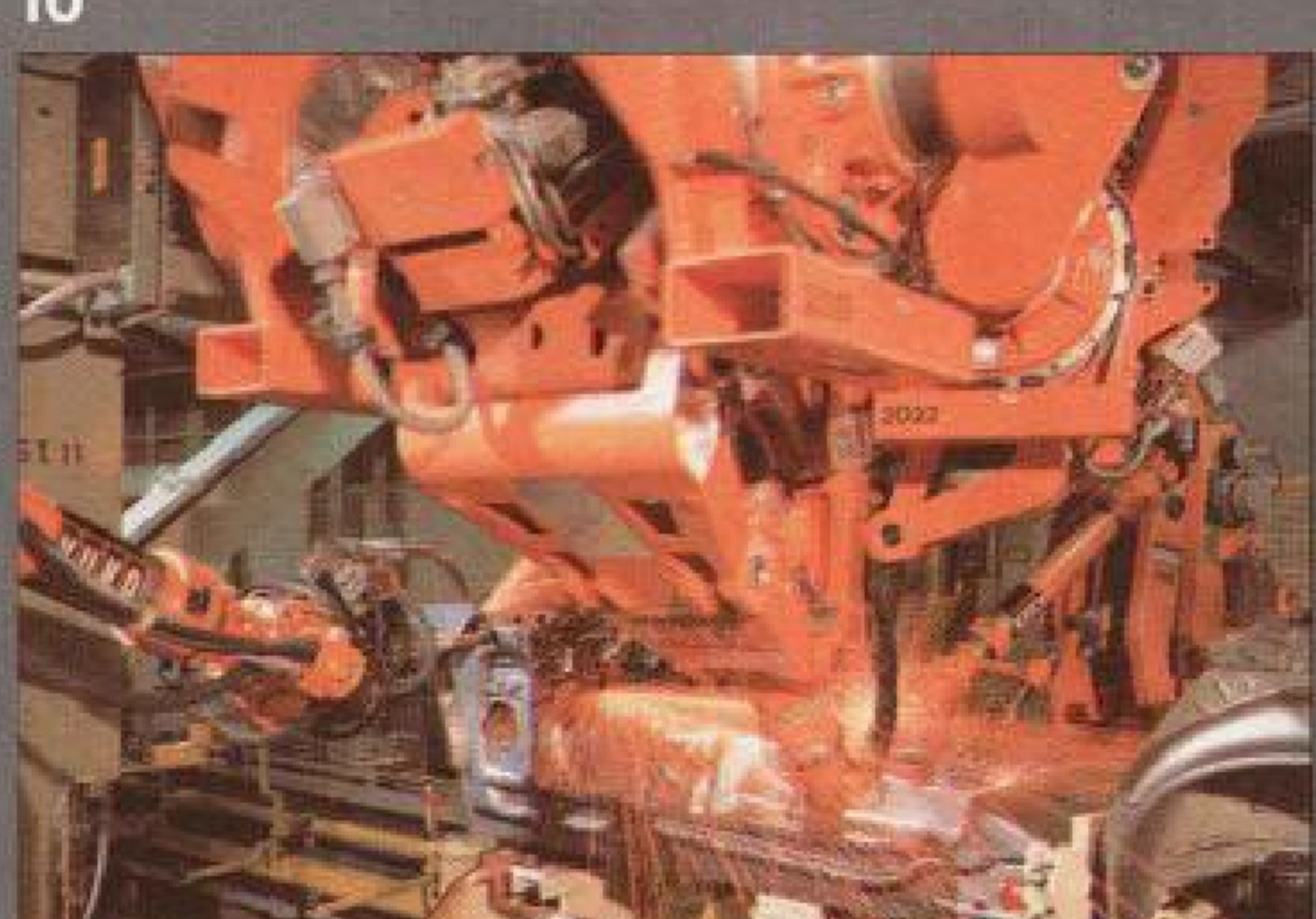
high level of overall quality. To enable thorough testing of BMW components, the most extreme driving conditions are simulated using equipment such as a dynamic wheel test bench that's electronically controlled (10).



9



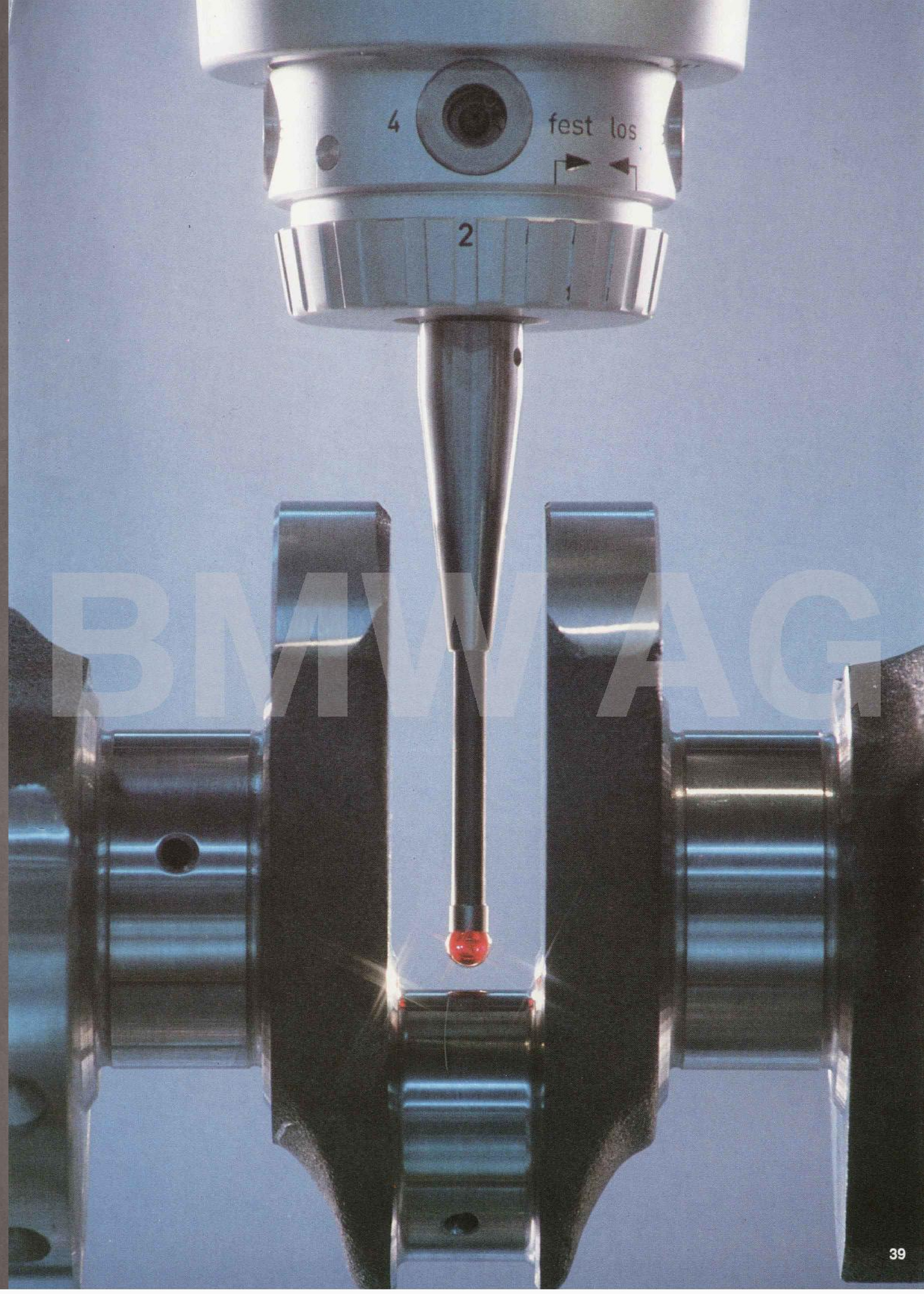
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11



12





**A machine that converts
mileage into
unabashed pleasure.**

As the editors of Motor Trend observe, "...once a knowledgeable and experienced driver has driven a BMW, any BMW, nothing else feels quite as good as it did before." Fresh proof of this is offered by the 318i. A car which, thanks to heritage, refinement, and technology makes the mundane goal of getting from point A to point B more secondary than ever to the sheer pleasure of doing so. If you see no need to delay gratification, we invite you to arrange a test drive of the 318i with your nearest BMW dealer.



Technical Data BMW 318i

Dimensions and Weights

Two-door with rigid safety cell passenger compartment and crush zones front and rear, integrated center roof reinforcements.
Length: 176.8". Width: 64.8". Height (unloaded): 54.3".
Wheelbase: 101.2". Track front: 55.4", rear: 55.7".
Turning circle diameter (curb-to-curb) 34.4 ft.
Door cutouts: 47.5". Two front bucket seats: 20.1" wide each.
Rear bench seat: 52.4".

Width at shoulder height: front 52.0", rear 52.4".
Trunk capacity: approx. 15.0 cu.ft. Fuel tank capacity: approx. 14.5 US gal. including 2.0 US gal. reserve.
GVWR 3320 lbs.
GAWR front 1539 lbs.
rear 1821 lbs.
Service load 940 lbs.

Engine, Power, Transmission, Performance

Four-cylinder four-stroke in-line, water-cooled engine, longitudinally mounted and inclined, light alloy cylinder head, crossflow principle, hemispherical swirl-action combustion chambers, overhead camshaft with three bearings, inclined overhead valves in V-arrangement, roller chain drive, crankshaft with five main bearings and four counterbalances, pressure oil circulation, full flow oil filter with regulation valve.
Bosch L-Jetronic microprocessor-controlled fuel injection, 3-way catalyst with Lambda sensor.
Capacity 107.8 cu.in.
Stroke 2.79"
Bore 3.50"
Power 101 hp (SAE net) at 5800 rpm
Torque 103 ft.lb (SAE) at 4500 rpm
Compression ratio 9.3:1
Breakerless ignition system controlled by microprocessor.
Three-phase current alternator - 80 Amp, 1120 Watt.
Battery - 12 Volt, 50 Amp hrs.

Hydraulically actuated single-plate dry clutch, torsional dampers and automatic adjustment.
Optional automatic transmission: fluid clutch with torque converter and transmission oil cooler

Gearbox:

- a. Manual transmission 5-speed overdrive
I 3.72 II 2.02 III 1.32 IV 1.0 V 0.81 R 3.45
- b. Automatic transmission 3-speed (optional equipment)
I 2.73 II 1.56 III 1.0 R 2.09

Final drive ratio 3.64:1 (manual transmission) and 3.64:1 (automatic transmission)

Two-piece drive shaft with flexibly mounted central bearing and two universal joints; rear-wheel drive through double universal joint shafts with maintenance-free constant velocity joints.

Acceleration: 0-60 mph in 11.4 sec., manual transmission
Unleaded gasoline: 91 RON (87 AKI)

Chassis and Brakes

Front wheel suspension: Independent on MacPherson struts with helical springs and torsion bar stabilizer.
Rear wheel suspension: Independent semi-trailing arms with progressive springs and non-concentric shock absorbers with teflon coated pistons.
Collapsible safety steering column with 2 universal joints, power assisted rack-and-pinion steering, overall steering ratio 21.4:1

Wheels: 6 J x 14 light-alloy
Steel-belted radial tires: 195/60 HR 14
Sensor for brake lining wear indicator, front left
Twin-circuit power-assisted braking system with servo unit and rear axle brake pressure regulating device.
Front: floating-caliper disc brakes with automatic adjustment, diameter 10.04"
Rear: simplex leading and trailing shoe drums, drum diameter 9.0", mechanically operated handbrake.

Equipment

Exterior: Energy-absorbing bumpers with rubber moldings, mounted on hydraulic shock absorbers. Integrated air dam. Quad headlights with halogen high beams and ignition override, two back-up lights, rear window defroster, tinted glass all around with dark green border on top of windshield. Electrically operated tinted outside rearview mirror, left and right. Cavity seal, undercoating. Heating and Ventilation: Fresh air heating with easily adjustable heating and air conditioning system and three-speed blower, defroster outlets for windshield and side windows, fresh air intake through grills directionally adjustable at the side and in the center, with separate controls for both driver and front seat passenger. Illuminated heating controls, flow-through ventilation.
Interior: Instruments and operating elements arranged in a semi-circle around the driver, easily readable and clearly mounted instruments with a tachometer, digital clock, fuel and temperature gauges, odometer with trip recorder, Energy Control, Service Interval Indicator, Time Delay Courtesy Light, adjustably orange lighted instrument panel, automatic windshield wiper/washer system with stalk control, intermittent operation and two-speed wiper.

Warning lights for fuel reserve, brake lining wear, handbrake and braking system, heated rear window, alternator, oil pressure, "Fasten Seat Belts" and "Oxygen Sensor Service." Four-spoke padded steering wheel with safety impact pad and four horn contacts. Front reclining bucket seats with easy length adjustment on roller bearings. Height-adjustable headrests in front controlled by a push button. Three-point automatic seat belts with hidden reels in front and rear. Front belt lock fastened to seat. Two-point automatic seat belt rear middle. Armrests on door with integrated handgrip on the front passenger side, rear hand grips above side windows. Full carpeting, carpeted rear shelf, cloth or leatherette upholstery, storage in lockable (and lighted) glove compartment, additional storage in pockets on the doors. Cigarette lighter, safety ashtray in the instrument panel, center ashtray in the rear, anti-glare rearview mirror, safety door locks.
Luggage compartment: carpeted storage space with tool kit in trunk lid.
Interior light with door contact switches, direct luggage compartment illumination, socket for rechargeable flashlight (optional) in the glove compartment.

Optional Equipment

AM/FM stereo cassette radio, automatic transmission, metallic paint, limited slip differential, power windows, central locking system, leather upholstery, dual position manual sunroof.

GVWR = gross vehicle weight rating
GAWR = gross axle weight rating

Sole U.S. Importer:
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Montvale, N.J. 07645

Alterations in models, standard and optional equipment, as described in the text and illustrations, may occur. Precise information should be obtained from your BMW dealer.



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