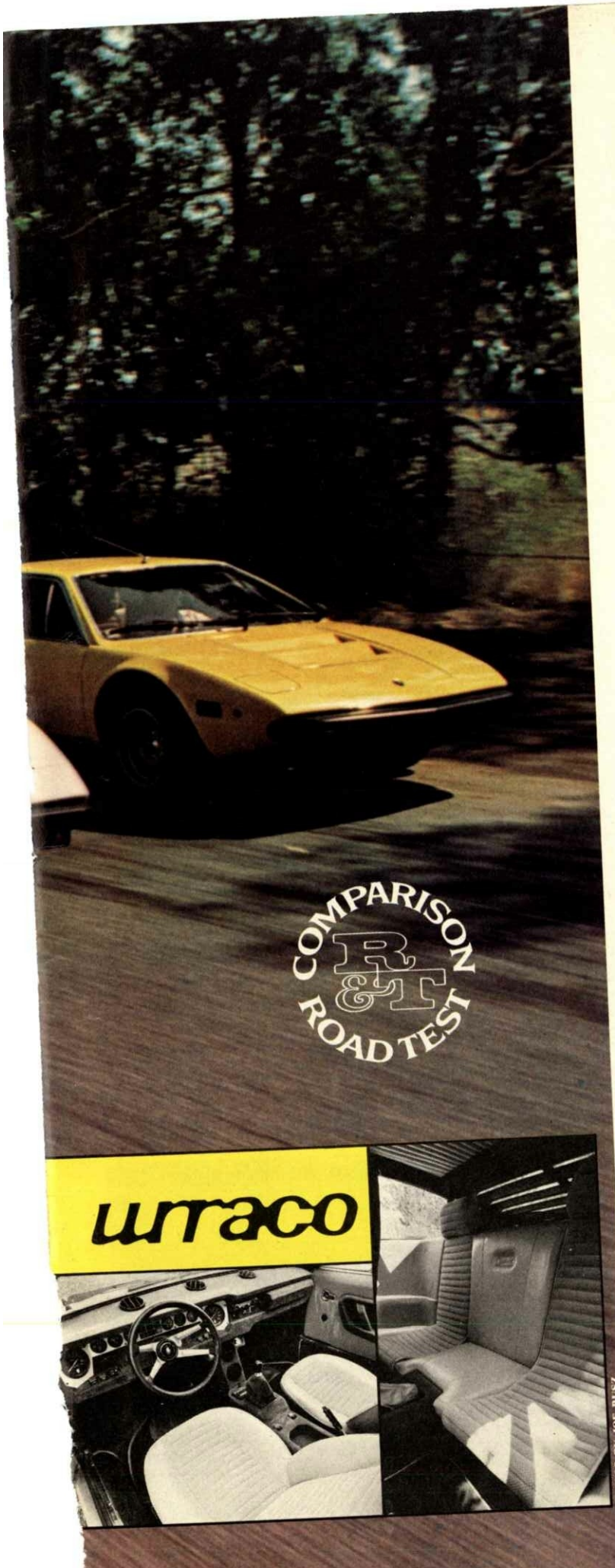
Dino

Merak



PHOTOS BY JOE RUSZ

THREE SMALL EXOTIC GTs

The Italian specialists are coping with the changing 1970s

THE ENERGY CRISIS was a particularly hard blow for the makers of high-performance exotic cars. The Italian specialists were hardest hit when the crunch came and it's no surprise that in the wake of such a traumatic upheaval that the trend is away from the super-powerful and super-thirsty big-engined cars like the Bora, Boxer and Countach toward smaller-engine cars stressing total refinement rather than brute power. The first of these smaller-engine exoticars to reach our shores was the Maserati Merak. Now its counterparts, the Lamborghini Urraco P111 and the Ferrari Dino 308 GT4, are here too. How have the Italians coped with the pressing demands of emissions, safety, higher fuel prices and lower speed limits? Do these new models retain the prestige and fun for which Italian cars have long been famous? What better way to find out than with a comparison test of this new breed of baby exotic GTs.

All three cars—Merak, Dino and Urraco—are similar in size and specifications. All are mid-engine designs with independent suspension front and rear, 4-wheel-disc brakes, the very best Michelin XWX radials mounted on alloy rims, 5-speed gearboxes and seating for two up front and very occasional rear seating for two small children or a small dog and a friendly medium-size cat. All are exotic looking. But little will be said about styling here because following this test is an excellent styling analysis with comments by Jon Thompson and drawings by Mark Stehrenberger.

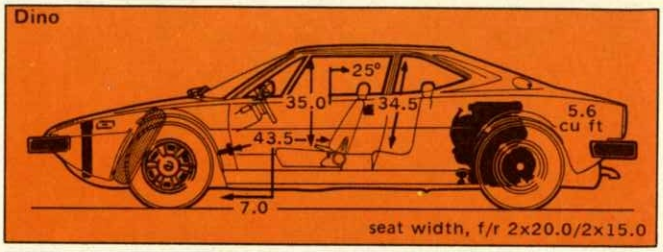
Although the mid-engine configuration is looked upon by many as being *the* design for ultimate roadholding and braking (nearly all cars designed solely for road racing are laid out this way), in a production car it nearly always extracts penalties in rearward vision, interior noise, luggage space and passenger accommodation. The solutions to these problems involve numerous compromises and tradeoffs and one of the most intriguing aspects of this test was discovering how different three seemingly alike cars can be.

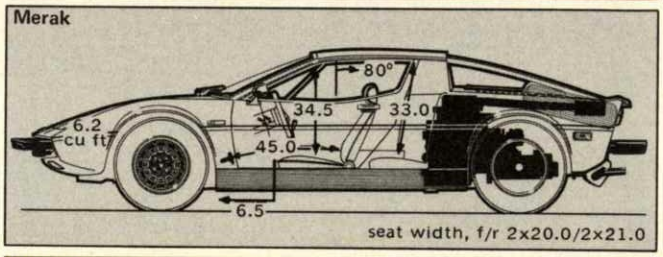
Maserati Merak

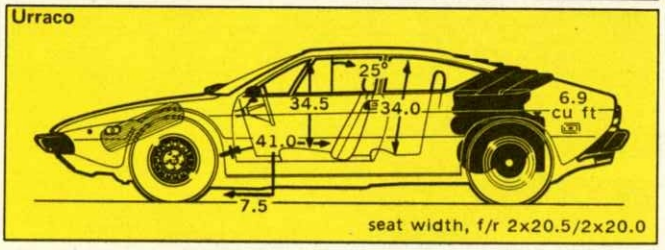
THERE'S GOOD news and bad news from Maserati. The bad news is that as we go to press the company is being liquidated. The board of directors met on May 22, 1975 and took this step after reviewing the losses incurred during 1974 and the negative outlook for sales in the future. Maserati is owned by Citroën and the parent company just didn't feel it could continue to absorb Maserati's losses any longer, especially with sales of its own cars (particularly the SM and rotary-engine GS) having been hard hit by the collapse of the high-performance market. The good news is that the unpredictable Alejandro de Tomaso, who lost to Citroën in a bid to buy Maserati a few years ago, is still interested. And most importantly we don't believe the Italian government will allow such a prestigious company as Maserati to fold. So although all production is currently halted, there is a good supply of Meraks and Kham- ➟

sins and some Boras still available in the U.S.

The Merak is by now a familiar car to R&T readers. It's the third offspring of the union between Maserati and Citroën and is a cross between the V-8 Bora and the SM. The 3-liter V-6 engine (a Maserati design), 5-speed transmission, instrument panel, single-spoke steering wheel and all-hydraulic power braking system are right out of the SM; the wheelbase, unit body-chassis structure, front-end sheetmetal, doors and all-independent suspension are Bora. The Merak's 102.3-in. wheelbase and 180-in. overall length make it the longest of the three cars. It's also the heaviest: 200 lb more than the Urraco and 25 lb heavier than the Dino. The 1975 version is little changed from the model we tested exactly one year ago. The bumpers have been revised which accounts for the slightly longer overall length, and the addition of a breakerless electronic ignition system allows tuneup intervals to be increased from 6000 miles between minor tuneups and 12,000 between major tuneups to a single tuneup every 15,000 miles.



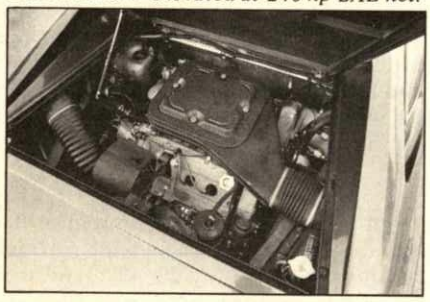


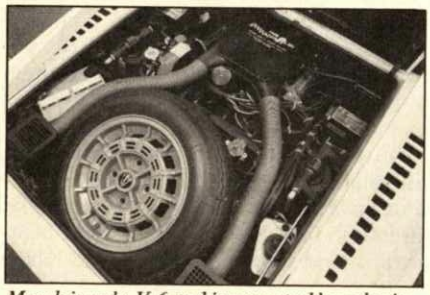


Dino 308 GT4

WITH THE demise of the Daytona and no plans by Ferrari to certify its successor, the Boxer, for sale in the U.S. the Dino is the only Ferrari model sold in the U.S. in 1975. Like its predecessor the Dino 246, the 308 is a transverse mid-engine design. The running gear, too, is very similar to its forerunner: unequal-length wishbones front and rear and the same 6½-in. wide alloy wheels shod with Michelin XWX high-speed radials. But it departs from the previous Dino and Ferrari tradition in several ways. The engine is a 90-degree, 2926-cc V-8 as opposed to the 246's 65-degree, 2418-cc V-6 making the 308 the first production Ferrari to use an 8-cylinder engine. Another surprise is that Bertone rather than Pininfarina was entrusted with the design of the body. Bertone won't have an exclusive on the Dino for long however, because Ferrari is getting ready to introduce a slightly smaller, strictly two-seater, Pininfarina-style version of this same midship car.

Dino's dohc V-8 is rated at 240 hp SAE net.





Merak is only V-6 and is mounted lengthwise.

The Pininfarina body (see June 1975 R&T) is altogether different from the Bertone 2+2 shape and shows resemblance to both the bigger Boxer and its V-6 Dino predecessor. The new coupe will probably be offered in both 2- and 3-liter form in Europe but *if* and *when* it comes to America it will be only as a 3-liter. Even the current 2+2 is due for minor revisions. As Stehrenberger's sketches show, new bumpers have been certified for U.S. 308s and these as well as a model with a luggage compartment replacing the two rear seats will be making an appearance shortly.

PERFORMANCE

	Dino 308 GT4	Lamborghini Urraco P111	Maserati Merak
Lb/bhp (test weight)	14.6	19.5	18.1
Acceleration: time to speed, sec			
0–30 mph	3.0	4.0	3.9
0–60 mph	8.0	10.1	9.2
0–90 mph	17.8	21.2	19.6
0–100 mph	22.1	26.5	24.2
Standing ¼ mile, sec	16.1	17.9	17.1
Speed @ ¼ mile, mph	85.5	83.0	85.0
Top speed, mph	138	124	133
Fuel economy, mpg	13.5	13.0	14.0
Braking: stopping distance, ft, from			
60 mph	208	165	175
80 mph	316	289	283
Control in panic stop	good	very good	very good
Pedal effort for 0.5g stop, lb	20	35	20
Fade, % increase in pedal effort in six 0.5-g stops from 60 mph	nil	40	nil
Overall brake rating	good	very good	very good
Cornering capability, g	0.798	0.791	0.791
Speed thru 700-ft slalom, mph	58.6	57.2	58.0

COMPARATIVE STANDARD FEATURES

	Dino 308 GT4	Lamborghini Urraco P111	Maserati Merak
Brake assist	S	NA	S
Alloy wheels	S	S	S
Air conditioning	$861	S	S
Electric window lifts	$264	S	S
Tinted windshield	$97	S	S
Heated rear window	$69	NA	S
Reclining seatbacks	S	S	S
Leather upholstery	$695	S	S
AM/FM radio	$210	S	$200
Adjustable steering column	NA	NA	S

Other available Dino options are: metallic paint ($347), electric antenna and two speakers ($139), 7½-in.-wide alloy wheels ($347), sunroof ($695). No other options available on Merak and Urraco.

S: Standard, NA: Not Available

Lamborghini Urraco P111

IT'S BEEN a long time coming but finally Lamborghini's compact Urraco is certified and on sale in the U.S. With a wheelbase of 96.5 in., an overall length of 167.3 in. and a curb weight of just over 3000 lb the Urraco is the smallest and lightest of the three cars. To date all production Lamborghinis have been 12-cylinder models, but Ferrari makes the Dino and it was natural that sooner or later Lamborghini would have a competitor for it. With a transverse engine just forward of the rear wheels the general layout of the two cars is similar. And like the Dino the Urraco's engine is a V-8, though somewhat smaller (2463 cc) than its Ferrari rival. Both have belt-driven camshafts, four for the Dino and two for the Urraco, but a new 4-cam, 3-liter V-8 has been developed for the Urraco. There's no word yet as to whether this larger engine will be certified for the U.S. The Urraco's suspension is a bit unusual. Both ends have strut-type geometry, not found in the Dino or any other Italian exoticar but somewhat similar to that of the Datsun 240Z. The body and chassis are an all-steel unit structure, differing markedly from the Dino's tubular steel chassis with separate steel and aluminum body panels.

Performance & Economy

THERE ARE three distinct levels of performance here: the Dino is a full second faster in the quarter mile than the Merak and almost 2 sec faster than the Urraco. This same disparity holds for the 0–60 mph times as well. The Dino engine has a V-8 throb to it but the machinery up top—belt-driven cams and valve gear—plus some transfer-drive noise give it a sound unlike any American V-8 and unlike any 12-cylinder Ferrari (or the Dino V-6 which sounds a lot like a 12). The exhaust tone is the epitome of the word guttural. It's not unpleasant but it's not a rich sound either—until you get up around 6500–7000 rpm. Then it takes on a melodious tone that is unmistakably Ferrari. The V-8, like other Ferrari engines, feels like it will rev forever; it seems less strained at 7500 rpm than most engines do at 4000. The engine is loud but the noises are exciting sounds that never overpower the senses and it's a considerably quieter car than the Dino 246. The Dino V-8 is amazingly flexible and docile. Except for a heavy clutch there isn't the slightest problem in driving the Dino in heavy traffic and if you lug it down to 1500 rpm in 5th gear, and then step on the accelerator, the engine will pull smoothly and effortlessly right up to its maximum speed. It starts easily hot or cold, warms up quickly, and suffers from no other emission-related driveability faults except an airpump-induced backfire or two after shutting off.

Less happy is the Dino's shift linkage. The gated shifter requires quite deliberate motions from 1st to 2nd and from 3rd to 4th. When we picked up the car the odometer was showing only 400 miles and over the next 1000 miles shift effort lightened appreciably but it was still balky and less than satisfactory. Our test car suffered from the same clutch problem as the Boxer we tested last June. Shift gears at the 7700-rpm redline and more often than not the lever slides into the proper gate but the transmission remains in neutral. To avoid this we lowered our shift points to 7000 rpm. So a properly performing Dino would be quicker still.

The Merak performed about as we expected, based on our experiences with a similar 1974 model. According to Maserati there are no engine changes other than the breakerless ignition mentioned earlier but the 1975 version was a bit more responsive off the line, marginally quicker to 60 mph and 1.5 sec faster to 100 mph. And during our wide-open-throttle acceleration runs the engine behaved flawlessly; both Meraks we drove last year hesitated and lost power after each full-throttle upshift. Like the Dino the Merak is a tractable car in town but with less available power the driver needs to shift into 3rd and 4th gears more often. The engine is a dual-overhead cam, 2965-cc V-6 Maserati developed from an existing V-8 so it is a 90-deg unit instead of the more usual (and ideal) 60-deg layout. The unevenly spaced power pulses result in a rough idle, but otherwise the engine is acceptably smooth for a car of such sporting character. It's not particularly quiet as it rushes toward its 6500-rpm redline but the noises it makes reveal its racing heritage and are an enthusiast's delight. On the highway it's a totally different story. At 60 mph in 5th gear the engine is turning at only 2600 rpm and the Merak just purrs along smoothly.

Aside from never finding the optimum choke setting for achieving fast cold starts, a bit of stumbling until the engine was warm and light backfiring similar to the Dino's, the Merak scores high marks in driveability. It was also slightly more stingy with fuel than either the Dino or Urraco.

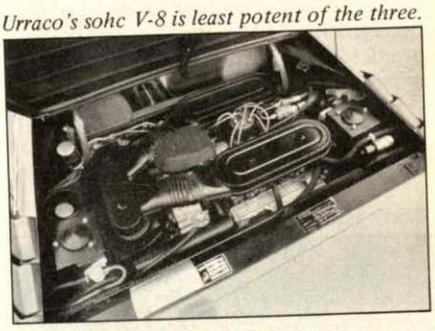
The Merak shows the way when it comes to precise shifting. The 5-speed Citroën-designed gearbox is one of the finest ever installed in a mid-engine car. There's a smooth, positive feel to the linkage and the effort is commendably light. Our only criticisms: reverse is a little difficult to engage and the linkage resisted the fast shifts we use for acceleration tests and allowed a slight crunch on each upshift.

Frankly, we are mystified by the Urraco's lack of perfor-

GENERAL DATA

	Dino 308 GT4	Lamborghini Urraco P111	Maserati Merak
Basic price	$22,593	$22,500	$21,700
Price as tested	$24,104	$22,750	$22,064
Layout	mid engine/ rear drive	mid engine/ rear drive	mid engine/ rear drive
Curb weight, lb	3235	3060	3260
Test weight, lb	3500	3420	3520
Weight distribution (with driver), f/r, %	41/59	43/57	40/60
Wheelbase, in.	100.4	96.5	102.3
Track, f/r	57.5/57.5	57.5/57.5	58.0/56.9
Length	169.3	167.3	180.0
Width	71.0	69.3	69.6
Height	46.5	43.6	44.6
Wheels	Cromodora, 14x6½	Campagnola, 14x7½JJ	Campagnola, 15x7½
Tires	Michelin XWX 205/70VR-14	Michelin XWX 205/70VR-14	Michelin XWX 185/70VR-15 front, 205/70VR-15 rear
Fuel capacity, U.S. gal.	22.0	18.5	23.0

Urraco's sohc V-8 is least potent of the three.



Urraco rear window slats hamper vision.

mance. Judging by the specifications—all aluminum, extremely short-stroke engine, 175 bhp SAE net at 7500 rpm, 139 lb-ft of torque at 5750 rpm, overhead camshafts, and four Webers—we expected the Urraco to be a real stormer. But as one staff member so aptly stated, it sounds like a real barn burner but it goes like a barn. It will barely outrun a 4-cyl Lotus Elite, and Mazda RX-4s and BMW 2002tiis will eat it alive. Both Urracos we drove performed similarly and according to Steve Diulo of Auto Classics, Inc, every one he's driven feels exactly the same.

According to Dan Morgan, President of Automobili Ferruccio Lamborghini, Inc, Los Angeles, California the first 40 Urracos shipped to the U.S. were European models with required safety and emissions equipment simply tacked on. This is the reason for the poor engine response, Morgan says, and he believes later Urracos will perform considerably better. We'll have a performance update on the Urraco as soon as one of the real U.S. models becomes available.

Shifting isn't the greatest pleasure in the Urraco either. The throws from one gate to the next as from 1st (left and back) to the 2nd-3rd gate are long and wide and the lever doesn't glide itself from notch to notch easily. Once the driver adjusts to the gates, however, shifting is lighter but more vague than the Dino's and nowhere near as light or precise as the Merak's.

Ride, Handling & Brakes

HANDLING IS what mid-engine cars are all about. All three cars were equipped with Michelin XWX radials giving them gobs of cornering power and virtually identical skidpad performance. They all corner with very little roll and the most predictable of mid-engine handling characteristics. That's not to imply that they all handle alike.

Ferrari, who seems less enamoured of the mid-engine layout for production cars than most of his contemporaries, has endowed the Dino with the most understeer. At speed, however, the understeer diminishes and there is an incredible feeling of stability and confidence in corners taken near the limit. Lift off when cornering hard and the line tightens slightly just as it should, and straight-line stability is nearly perfect, the car being little affected by side winds.

At low speeds the steering is somewhat vague and stiff, a Ferrari characteristic for more than two decades, but as the speed increases the steering becomes light and wonderfully precise, transmitting just the right amount of road feel to the driver.

The ride is superb: firm and well controlled but wonderfully supple with rough road and dip taking ability belying its limited suspension travel. There's none of the front end bobbing over gentle undulations characteristic of mid-engine cars with the largest portion of their mass centered between the wheels.

Take what we've just said about the Dino minus the criticism of its low-speed steering feel and understeer and you have a pretty good summary of the Urraco's ride and handling. Marvelous. The rack-and-pinion steering is light, precise, free of any play at its center and totally free of vices. The handling is wonderfully predictable at all speeds. The Urraco doesn't hug the road quite as well as the Dino at speeds above 120 mph (somewhat academic in this country anyway), but there's less low-speed harshness. Overall we rate the handling equal to the Dino's and with improved engine response it might be slightly superior.

Although the Merak weighs only 25 lb more than the Dino it feels like a much heavier car, particularly at low speeds. Around town the steering—direct acting rack and pinion without the SM's hydraulic assist—is rather heavy, but otherwise it's quick and precise with good road feel and moderate effort that diminishes with increasing speed.

Although firm riding, the Merak is softer than either the Dino or Urraco. On rough roads the ride becomes jouncy and the nose porpoises up and down over gentle freeway undulations but its silky smooth and quiet ride around town led one staff member to label the Merak as the "boulevard car of the three."

The Merak, like the Dino and Urraco, doesn't really come into its own until the speedometer starts to nudge 80 mph. Then the springing and damping seem just perfect and it tracks around corners as if on rails. Its cornering limits are on a par with its mid-engine counterparts but the Merak demands a more sensitive and attentive driver because these limits are approached with less warning than in the Dino or Urraco. Corner hard under power and the front end runs a little wide, but back off the throttle suddenly and the weight transfer will bring the tail around smartly. The transition occurs a little too quickly for the average driver perhaps but we mention this as a warning to the unpracticed rather than a serious criticism of the Merak's overall great handling. During our anchors-out panic stops from 60 and 80 mph the Merak and Urraco stopped in the shortest distances; the Dino trailed far behind because its front wheels locked severely and erratically. Constant pedal modulation was thus required to maintain control and the stopping distances we recorded are excessive for a car of the Dino's speed potential. Not that the Merak and Urraco were free of faults. Each suffered from moderate front locking toward the end of each panic stop but not enough to constitute a control problem. Fitting new pads reduced the Dino's locking problem to acceptable levels but we didn't have an opportunity to recheck its stopping distances.

In everyday use the Dino's brakes scored highest. The pedal effort is lighter than ideal but there's a positive, progressive feel to the pedal and braking action is directly proportional to pedal effort. The Merak's no-travel hydraulic brakes are oversensitive and difficult to modulate smoothly, particularly near the end of a stop which often ends up as a series of embarrassing jerky lunges. The same problem inhibits smooth heel-and-toe downshifting. The Urraco's brake pedal feels mushy for the first inch or two of travel—not very confidence

Dino's gated shift takes getting used to.

ENGINE & DRIVETRAIN

	Dino 308 GT4	Lamborghini Urraco P111	Maserati Merak
Engine type	dohc V-8	sohc V-8	dohc V-6
Bore x stroke, mm	81.0x71.0	86.0x53.0	91.6x75.0
Displacement, cc	2926	2463	2965
Compression ratio	8.8:1	10.4:1	8.8:1
Bhp@rpm, SAE net	240@6600	175 @ 7500	180@6000
Torque@rpm, lb-ft	195@5000	139 @ 5750	185@3000
Carburetion	four Weber 40 DCNF	four Weber 40 IDF	three Weber 42 DCNF
Fuel requirement	premium	premium	premium
Transmission	5-sp man.	5-sp man.	5-sp man.
Final drive ratio	3.71:1	4.03:1	4.38:1
Engine speed@60 mph, rpm	2950	3130	2600

inspiring—and it was also the only car to exhibit any brake fade.

Comfort, Controls, Accommodation & Vision

THE DINO sets new standards for comfort and outward vision in a mid-engine GT. Although the least stylish of the three, it's obvious that Bertone expended great effort to make the Dino interior a comfortable place to be. Only the Bora with its hydraulically adjustable pedals and multi-position steering wheel approaches the comfort available to a Dino driver. The seats have just the right amount of curvature and provide ample lateral support, the padded steering wheel and pedals are ideally positioned, instruments are large and readable and major controls such as lights, washer and wiper are on steering-column stalks.

The interior is tastefully appointed; leather is optional but the cloth seats are particularly appreciated as the material holds the body snugly during spirited cornering. Other thoughtful touches: the dash is covered in black vinyl instead of the usual fuzzy dust-collecting material and the sun visors are recessed (they don't pivot to the sides, however) into the headliner and the inch saved is needed when you lean forward. None of the cars provide adequate headroom for drivers much over 5 ft 10 in. and as we mentioned earlier the rear seats are ludicrous. But those in the Dino are at least properly and reasonably comfortable for short distances if the front seaters cooperate by moving their seats forward, something we can't say about the severely upright rear seats in both the Merak and Urraco.

The Dino solves the outward vision problem better than any other mid-engine GT, regardless of price. The sharply sloping front fenders and the rear end of the rear deck aren't well delineated but there are absolutely no blind spots. In fact, it's easier to see out of the Dino than many much taller coupes and sedans. Inadequate ventilation seems to be the rule rather than the exception in cars like the Dino. Here the 308 gets better than passing grades. For once the three round dash-top vents working in conjunction with two under-dash openings put out acceptable amounts of air once the car is at speed; for around town driving, air flow can be boosted by a fan (one speed only). The optional air conditioning system is only adequate; because of the expansive windshield it takes a long while to cool off the interior on a hot day and the movable flaps in the dash-top vents can't be adjusted far enough to blow cool air where it's most needed: directly on the occupants.

Several notches behind the Dino in ergonomics is the Merak. Compared to the relatively tall and airy feeling Dino, the Merak (and the Urraco to an even greater extent) is a lowrider. With a high central tunnel on one side and an eye-level window ledge on the other the Merak driver doesn't sit in the car—he wears it.

The steering wheel and instrument panel, complete with oval speedometer and tachometer and 13 warning lights come right from the SM. The tach is easy to read, but despite its wide range of up-and-down as well as in-and-out adjustments, the steering wheel hides a portion of the speedometer and warning lights from some drivers. And the flat glass instrument coverings and the satin-finish chrome trim reflect up into the sharply raked windshield day and night. The outboard location of the handbrake is a real bother on entry or exit but other controls get good marks. Three steering column stalks control the washer, wipers, turn signals, horn and lights. Controls for intermittent wipe (intervals can be varied from 3 to 30 sec) and instrument-panel light intensity are located under the steering column.

The Merak scored highest in ventilation and air conditioning. Eyeball vents at either end of the dash put out a lot of air, even at relatively low speeds. This is appreciated because even on its high-speed setting the fan doesn't boost air flow appreciably. There are adjustable vents at the center of the dash, too, but these function only when the air conditioning is operating.

Outward vision is usually a weak point of mid-engine designs but the Merak is better than most (it doesn't approach the Dino in this critical safety area, however). The forward portions of the sloping front end aren't well defined but a blind spot caused by the thick center post becomes apparent only when changing lanes or when entering traffic at an acute angle.

Every driver without exception rated the Urraco the least comfortable of the three cars. The pedals are much too close and the deeply dished steering wheel is too far away; a classic example of the common Italian drawback of being laid out for long arms and short legs.

Some other ergonomic problems are that the small instruments—spread out between the widely separated tach and speedo—are partly obscured by the instrument cowling; the heater-vent controls need better labeling and controls for the wiper and washer should be moved to the steering column. The ventilation is the worst of the three cars—we never were able to obtain outside air—and the standard air conditioning has only two central outlets that direct all the cold air at the occupants' knees, down on the floor or up in the air.

INTERIOR NOISE

	Dino 308 GT4	Lamborghini Urraco P111	Maserati Merak
All noise readings in dBA:			
Idle in neutral	67	62	66
Maximum, 1st gear	88	90	83
Constant 30 mph	72	69	70
50 mph	77	73	76
70 mph	79	79	76
90 mph	84	85	78

WARRANTY & MAINTENANCE

	Dino 308 GT4	Lamborghini Urraco P111	Maserati Merak
Service intervals, mi:			
Oil/filter change	6000/6000	5000/5000	2500/5000
Tune-up	15,000	15,000	15,000
Valve adjustment	15,000	15,000	15,000
Warranty period, mo/mi	12/10,000	6/8000	6/10,000

Conclusion

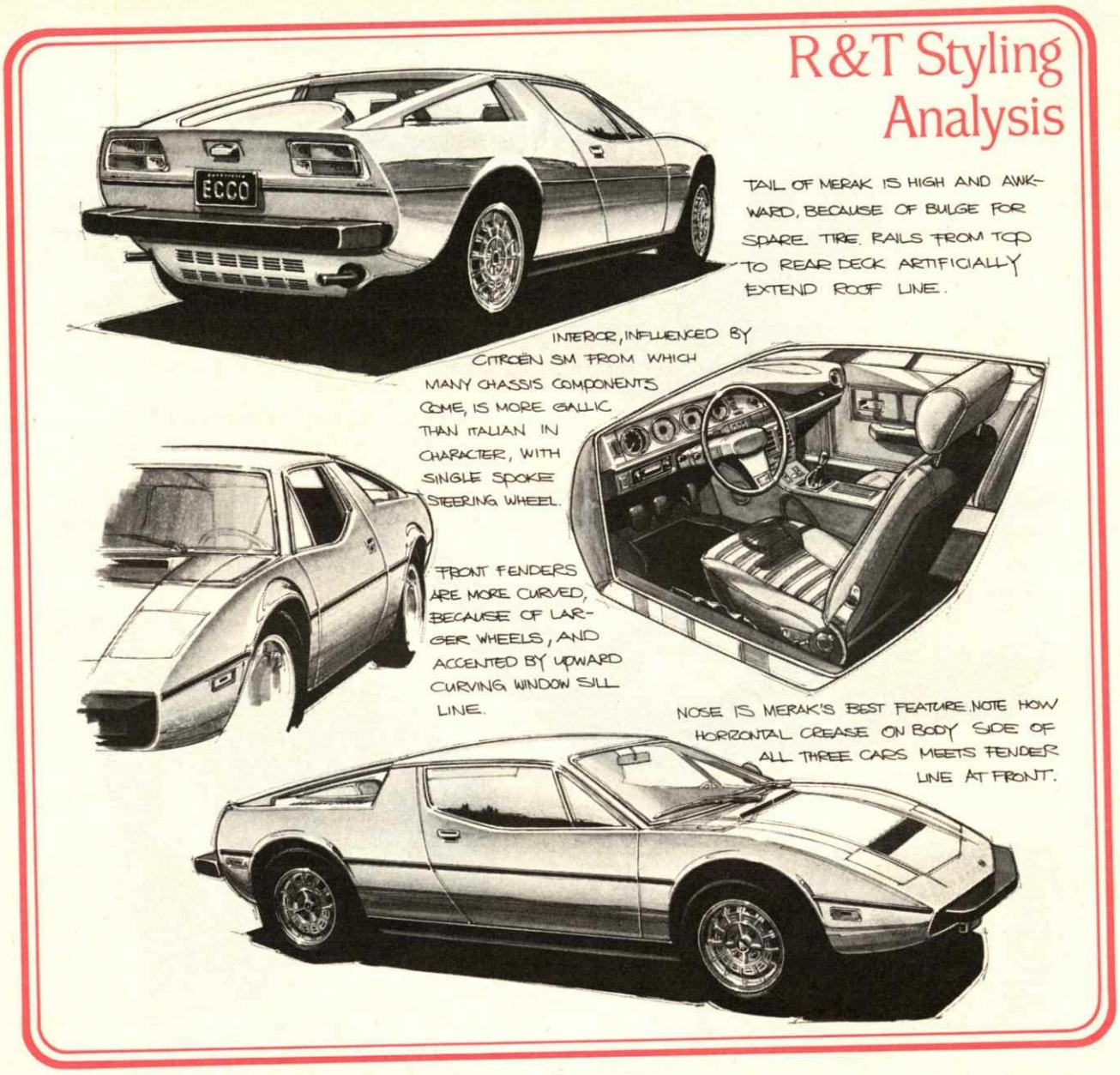
THE OVERALL winner? The Dino by a wide margin. Four out of the five evaluators picked it as their overwhelming favorite with the lone dissenter opting for the Merak because it fit his larger-than-average frame more comfortably than either of the others and for its lower level of road and wind noise.

The Dino has all the traditional Ferrari virtues and then some. It hardly needs saying that the 308 like the larger Ferraris is a driver's car in the extreme. Outstanding performance, ride and handling are all there. It's an exhilarating car to drive fast, yet it's absolutely docile in town. There are few of the usual mid-engine sacrifices and none of the habitability defects present in the Merak and Urraco.

Want a car that is guaranteed to gather a crowd and turn heads wherever it's parked or driven? That's the Merak. Perfect for cruising around Beverly Hills or Miami Beach, the quiet and smooth riding Merak is equally at home on twisty two-lane roads. But it doesn't exhibit quite the aplomb under these demanding conditions as the more single-purpose Dino and Urraco.

The Urraco remains an enigma. By far the most sleek looking of the three it promises much but delivers little. Hopefully, we'll have better things to say about the performance when we have the opportunity to drive a real U.S. version. But unfortunately, the outward vision, pedal-steering wheel relationship and control problems probably won't be changed.

As we said at the beginning, three very different, similar cars. So spend your money wisely and take your pick.



DINO 308 GT4, LAMBORGHINI URRACO P111 & MASERATI MERAK

The mid-engine exoticars are coming of age

BY JONATHAN THOMPSON

Maserati Merak

DESIGNED BY Giorgio Giugiaro for the larger Bora over four years ago, the basic body shape of the Merak is a latter-day equivalent of such brutally potent machines as the Ford GT and De Tomaso Mangusta. Because the 4.7-liter Bora V-8 needed a lot of room, the Bora was planned as a 2-seater and it would be just as well if the 3-liter Merak had left it at that. The Merak's wheelbase is the longest of the three, but the longitudinal placement of the engine makes it the most wasteful of space. The Merak inherits its large wheels from the Bora and this dominance of the form by the running gear is further emphasized by the full front fenders, the upsweep of the window sill and the high rear deck. The visual mass of the Merak is therefore situated just ahead of the rear wheels, giving the car its brutal look.

But from the rear this bulk is awkward, especially because of the spare-tire bulge (another of those details caused by U.S. regulations rather than Italian design—in Europe a space-saver tire can be used). It's also obvious that the various louvers in the rear deck were established toward the end of the design process, as a result of the different demands of the V-6, rather than integrated as part of the initial concept. The Bora had a glassed-in engine cover, while the Merak attempts to maintain the fastback line by the two buttresses running from the roof to the rear corners of the car. They're tacked-on, totally without functional logic, but at least it can be said that the car would look really awkward without them.

The interior of the Merak is more Citroën than Maserati, with SM-type oval instruments and single-spoke steering wheel, and the effect is almost salon-like in contrast to the rugged exterior. Although I rate the Merak's body the least successfully designed of the three, its basic impact is forceful and it is completely entertaining.

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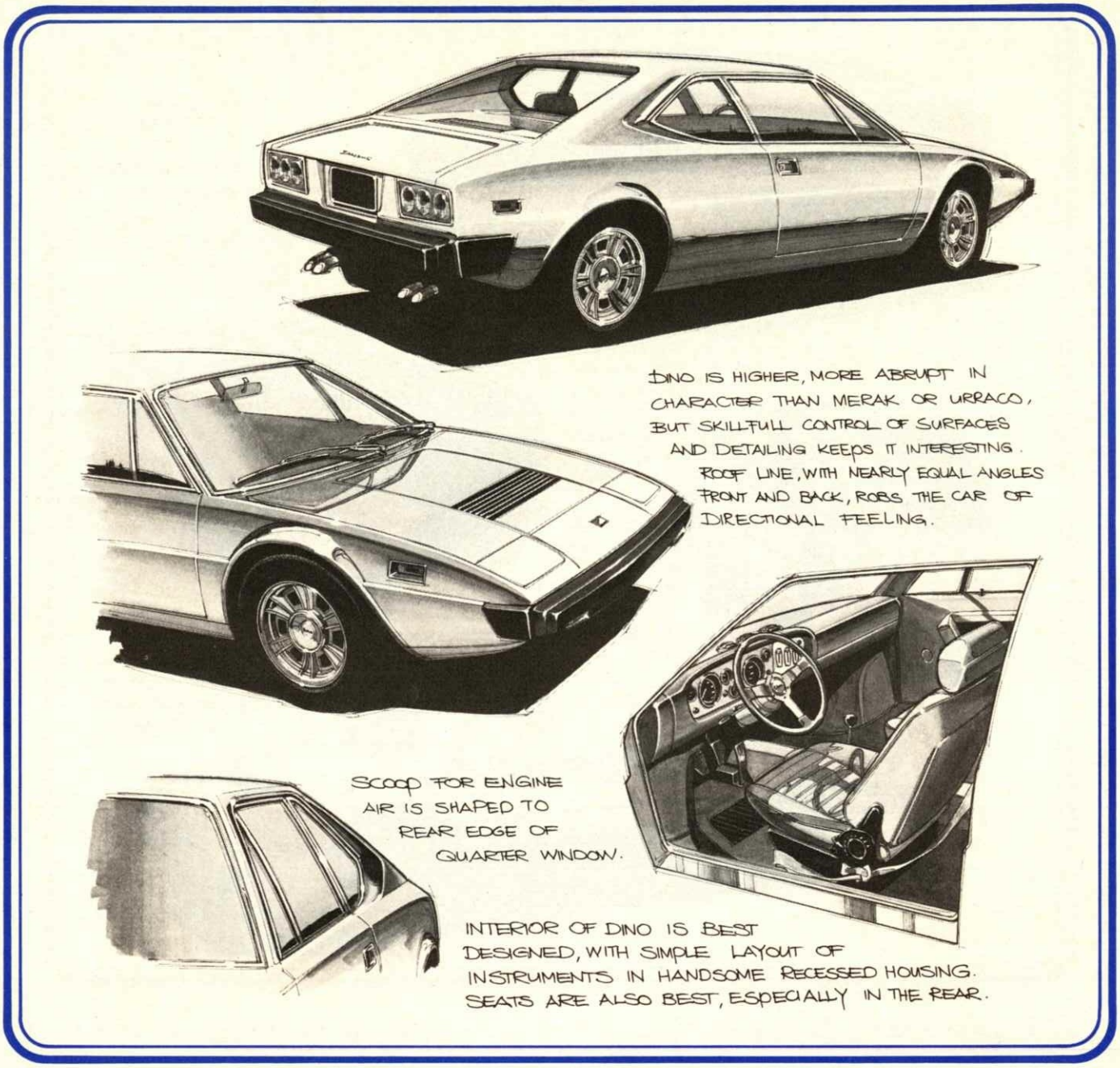
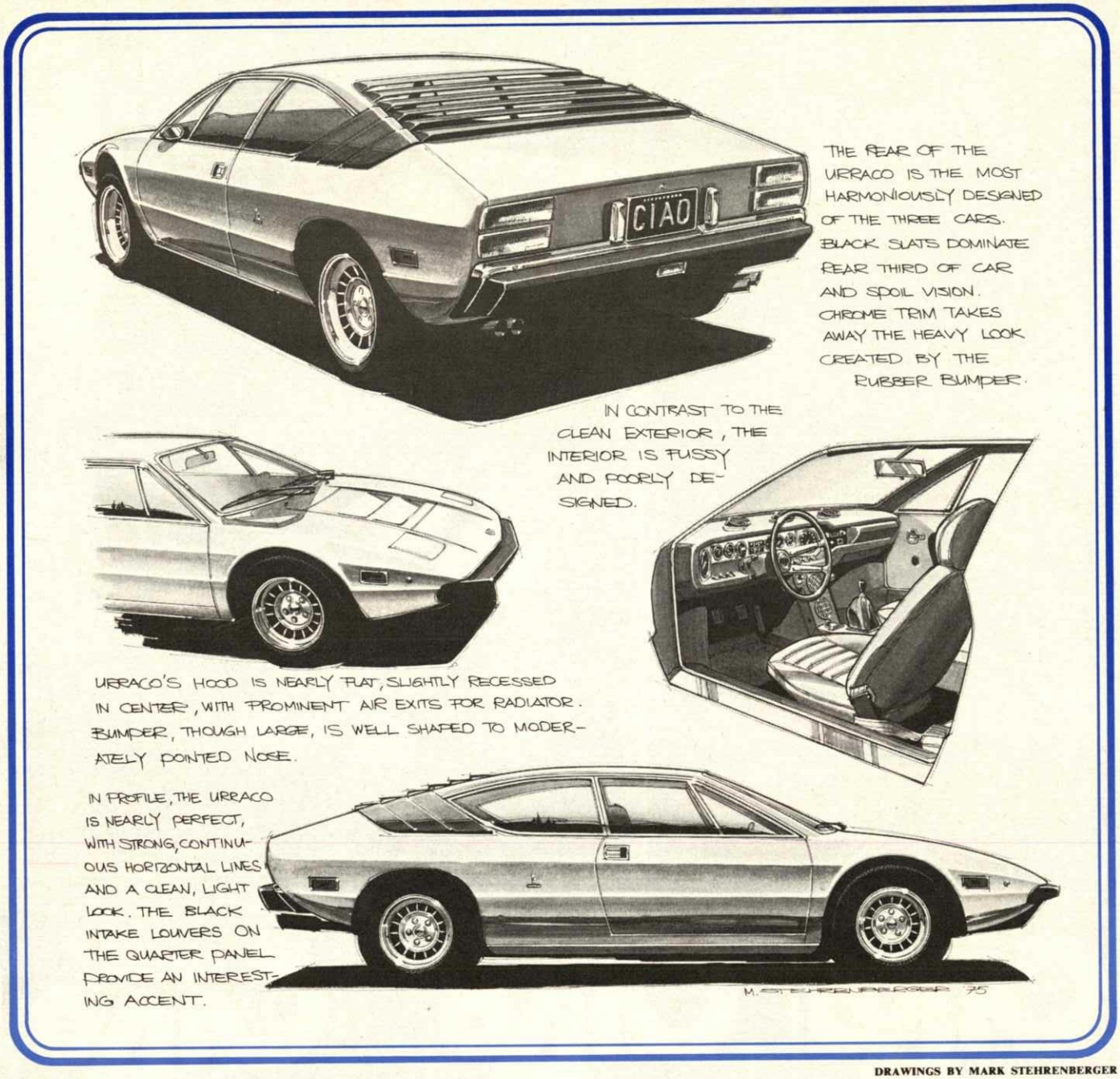


Dino 308 GT4

THE BERTONE-designed 308 is the newest design, having made its debut in the fall of 1973. Hardly anyone, not even the most loyal Ferrari enthusiast, was much impressed by the first photos of the car, but a close-up inspection reveals many virtues. It's a design that grows in appeal with familiarity and which will have a greater influence on future mid-engine cars than the Merak or Urraco. Bertone worked very closely with Ferrari engineers to solve some of the visibility and engine-access problems associated with the mid-engine configuration, and its body is the most functional and honest.

The Dino has excellent surface design, tautly avoiding excesses through subtle curvatures and tight radii, and detailing is comparable to that of the Urraco. The triangular slots feeding air to the engine compartment are a harmonious repeating of the quarter-window outline (in contrast to the Urraco, where the large black slats overemphasize the intake function). As with the Merak, the worst view of the Dino is from the rear; it looks narrow and the taillights, with a group of three circular lenses molded into each flush panel, aren't very handsome. The rear quarters of the roof are thick, but their inner surfaces are concave, giving more rearward vision than one would expect; the Dino is easily the best car in this respect.

It also has the best-designed interior; the instruments are logically and attractively mounted within one simple housing which also has the switches and controls set at each side and angled toward the driver. The seats are handsome without being luxurious and even though rear legroom is minimal, the cushion and backrest are properly designed. In contrast to its almost sedate exterior, the Dino expresses its high-performance capabilities with a stark, racing-style gearshift gate. Nevertheless, the overall impression is of a mentally satisfying rather than emotionally stimulating form; when one recognizes the Dino's rational solution to high-performance requirements the concept of what constitutes an appealing GT shape may be modified.



DRAWINGS BY MARK STEHRENBERGER

Lamborghini Urraco P111

THE URRACO, also produced by Bertone, is the oldest design, having appeared in late 1970. Yet its form is fresh and attractive, because it is basically simple and lacks exaggeration. To my mind the one exterior fault is the use of the slatted engine cover, a legacy of the Miura.

In profile the Urraco is graceful, linear, light and sleek, resulting from three nearly uninterrupted lines: the upper surface of the fender, the horizon break running through the front wheel arch and above the rear wheel opening, and the full-length crease in the lower part of the body. That's it—no tricks. The roof line runs all the way to the rear and the windows are beautifully shaped. Looking down on the car, one can appreciate the clean surfaces of the hood (slightly recessed in the center and relieved by the two radiator-air exits) and rear deck. The front bumper is quite large but so well shaped that it looks almost as good as the original slim chrome bumper of the Italian version.

Overall, the Urraco is a car which looks agile and efficient, satisfying in both the artistic and mechanical sense. Its wheels are the simplest yet most distinctive (the Merak's are unnecessarily "busy" while the Dino's are too similar to those on many Fiats and BMWs). Only when inside the car is one disturbed by the complicated, poorly finished instrument panel and the unacceptable rear vision; not the nicest car to look out *from*, it's easily the most beautiful of the three GTs to be seen in.

I still don't think that the triple requirements of engine accessibility, rearward vision and a handsome roof line have all been successfully solved on any one mid-engine GT car. The Dino has good rearward vision, the Urraco has an exceedingly handsome line, and both transverse-engine cars are reasonably accessible. All three cars show that the mid-engine formula is coming of age; perhaps the most important thing is that they're all instant head-turners which no enthusiast can regard with indifference.