AMX AMERICAN MOTORS' SUPERCAR

text and photos by Alex Walordy

American Motors enters the high-performance car field with a big-engined, scaled-down Javelin.

IF YOU LIKE two seaters, you might as well stop polishing that '57 T-Bird, for American Motors has come up with something bigger and better. Their AMX is a tough machine, ready to handle all comers at the drag strip. It should. Being as wide as the Javelin, but a foot shorter. It has a short gutty look. In fact the wheel base is just 97 inches instead of 109.

As far as appearances go, the AMX is simple, uncluttered, broadshouldered, and makes you think of tackles, passing and winning.

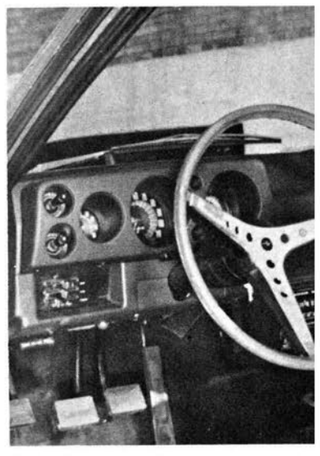
Instead of the current claptrap of doors, vacuum motors and concealed headlights, there is just a pair of sealbeams and simple tunneled grill. In other words, a machine built to move.

A glance at the list of engine options quickly proves that there is more to the power department than a fancy styling design. In fact you can get an AMX with a choice of three engines: a 290 V8, followed by a 343 and a 390. The horsepower ratings are modest enough to slip into the lower stock car classes at 225, 280, and 325. On the other hand, the possibilities for growth are limitless.

American Motors has had a new performance wind blowing through the organization and while they are not in racing as such, most of the people in the top end of the speed equipment business are making pieces available for the Javelin and the AMX. For instance, word has trickled in to us from several sources that American Motors cam billets are made available to all specialty grinders like Isky, Crower, Crane, Racer Brown and Engle among others. Doug and Jardine make headers for the new 390 as well as the smaller engines. Incidentally, the new 390 intake manifold released for the Javelin and the AMX will fit the smaller engines to good advantage. However if you wish to go aluminum, there is a new Edelbrock aluminum manifold with a big three-barrel 950 cfm Holley which should turn the trick.

The 390 engine block for the AMX is cast by thinwall foundry methods with accurately located resin cores, and has a forged steel crank as well as forged rods (the 270 and 343 have cast cranks). The stock pistons are cast but Forgedtrue, among others, makes forged pistons. Current horsepower ratings are given at 4600 rpm which is nothing to write home about, but some of the new lifters and optional cams have cranked out 7,000 rpm according to our sources.

Schiefer produces a forged aluminum flywheel for the 390 and a Rev-Loc or a Borg and Beck 10.5 inch clutch, and there are no less than three companies working on scattershields, including names like Ansen, R.C. and Lakewood. The current AMX four-speed is a Borg Warner T10 with a cast iron housing. It is a wide ratio box with 2.64 first, but by the time this is in print a close ratio with a 2.23 first will be available. Currently, the T10 is released with an American Motors shift linkage but Hurst now makes an optional kit for it. Nothing like Ford's "T and C" or GM's Muncie four speed are currently in sight for AMX usage.



TOP—Going away at full tilt, the AMX cannot hide its relation to cousin Javelin. It's considerably shorter, lighter, less roomy, and bags faster than the bigger AMC sporty car. ABOVE—Stylists have done some heavy-handed metal sculpting on the AMX body, but it all hangs together rather nicely. Twelve inches were removed from rear.

The two rear axle ratios currently available for the AMX from the dealer showroom are a 3.15 and a 3.54. This range is expanded by dealer installed ratios of 3.73, 3.91, 4.10, and 4.44. Perfection gear is working on some optional ratios. The basic rear axle housing is a Dana of the Salisbury type, but American Motors makes their own 8⅞ inch ring gears for it. So it is difficult to pirate gears from other car makes. The AMX 3.90 limited slip rear has the strongest axle design and is therefore scheduled for all AMX production regardless of the engine size ordered.

It's pretty doubtful that the AMX will classify as a super traction car in stock shape. The official CG location is given as 41.5 inches away from the centerline of the front wheels. This, in a 97-inch wheelbase car, means that approximately 57.5 percent of the weight is on the front end but only 42.5 percent on the rear wheels where traction is needed. There is very little doubt that some sharp hot rodders will beat the percentages with some large-sized rubber and the good present-day compounds. Another point in favor of the AMX is that the rear end was moved forward, in relation to that of the Javelin, while the engine and front end remained in stock location. This should provide an edge in traction.

The factory obviously gave thought to traction problems, since they supplemented the leaf springs at the rear of the AMX with a pair of small traction bars. Whether serious drag racers will want to stay with the factory units we can't say. However Tractionmaster and Sparkomatic have both released replacement parts, and others will probably join the fray.

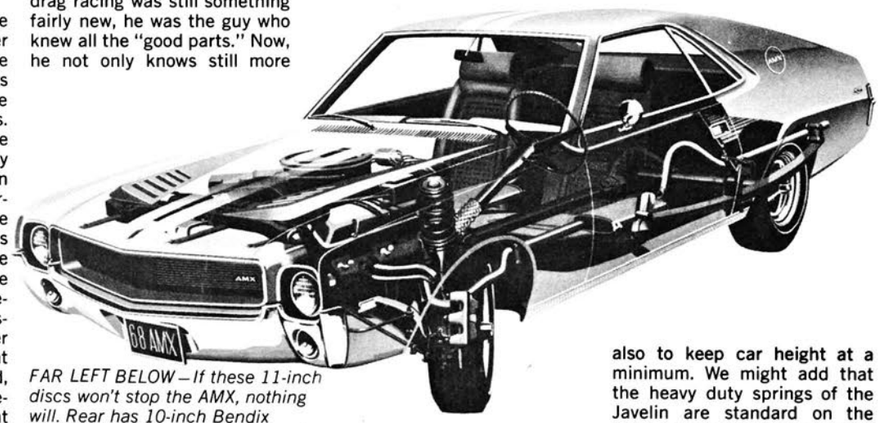
One of our interviews regarding the AMX was with Carl Chakmakian, the Manager of Performance at American Motors. The title may be new, but Carl has been at American Motors for a long time, and back when drag racing was still something fairly new, he was the guy who knew all the "good parts." Now, he not only knows still more parts, but he seems to be the power behind many of the new drag racing pieces. We hope he won't mind our telling on him, but while in his office phone calls from some mighty familiar names in drag racing kept pouring in. Like we said before, there is a new wind blowing at American Motors, and the good guys are back in the saddle.

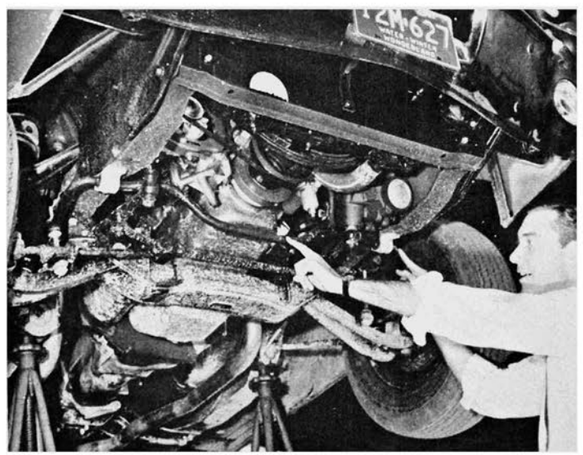
When it comes to suspension, the AMX and the Javelin are practically look-alikes. Both standard and heavy duty front coil springs are offered on both cars, which results in wheel rates of 126 and 136 pounds per inch respectively (a wheel rate represents the number of pounds by which the loading must change for the wheel to move an inch). Translating these numbers into words, the HD AMX front springs are designed for handling, not boulevard ride. We might add that the AMX front end differs from the ones used by the Big Three in that the spring acts directly in line with the steering knuckle, and not on the upper control arm. As a result, bending loads on the arms are minimized, and so is wear at the pivot points. To keep the ride flat, the front end has been fitted with a stabilizer bar that is connected via short links to the lower control arms.

The AMX is released with three different types of steering gears. The standard manual one is of the wind-and-wind variety, a 24:1 overall ratio and five turns lock to lock. Next comes an optional manual steering gear with a substantially faster 19.3:1 ratio and just four turns lock to lock. The power steering is still faster, with an 18:1 ratio and requires still less cranking: 3.8 turns lock to lock.

The leaf springs at the rear carry an odd-shaped reverse arch designed to provide the necessary rear understeer and also to keep car height at a minimum. We might add that the heavy duty springs of the Javelin are standard on the AMX, with a 123-lb. wheel rate, and the heavy duty AMX rear springs are stiffer still, which results in a 148-lb. rate. With the heavy duty suspension comes an increase in shock absorber size, from a one-inch diameter to 1 3/16 inches.

Dick Teague, the amiable basketball player-sized stylist who designed the AMX and its bigger brother the Javelin, gave us quite a run down on some of the thinking behind the two cars. Dick, incidentally is a frequent visitor to the Detroit drag strips, and claims that anything which happens on the drag strip can eventually influence things like hood blisters, scoops, and the generally sporty feeling of a car. As Teague puts





FAR LEFT BELOW—If these 11-inch discs won't stop the AMX, nothing will. Rear has 10-inch Bendix drums. BELOW LEFT—Instrument panel is complete, functional, easy to use, but not what you'd call flashy. BELOW—Front end has linked stabilizer bar, forward-sitting steering box.

AMX

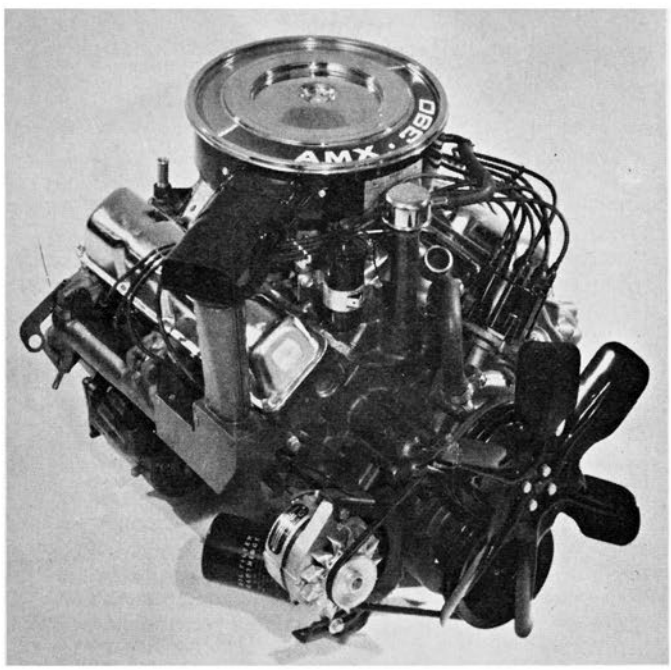
it, "Drag racing has a way of soaking into the design."

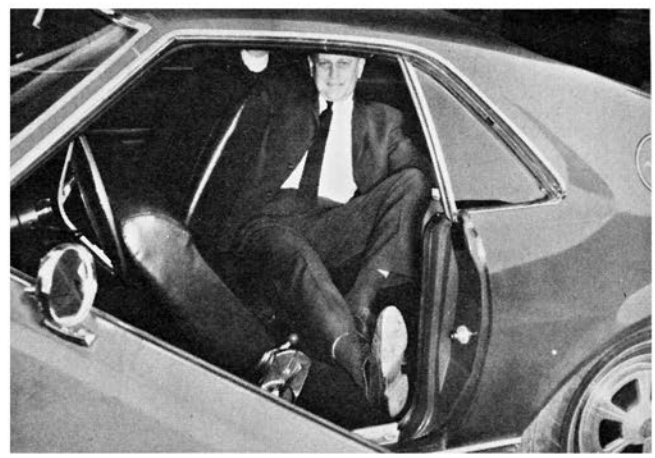
While the Javelin and AMX began as two very different vehicles they have now fused into a Big Brother-Little Brother team, with complete interchange of engine and running gear, as well as some interchange in the suspension and lower platform. Even in terms of styling, no attempt has been made to keep them too different. In fact the biggest change is that the AMX has 12 inches chopped out of the center section behind the door. This eliminates any question of rear seats and makes the AMX a two seater – or does it?

The space behind the bucket seats is comfortably carpeted, and yours truly who has been on the heavy side of 200 pounds for longer than he cares to remember, fits in with ease, automatically making the AMX into a three seater. We might add that a six footer, will fit in the back with far more leg room than in either a Javelin or a Mustang, once he overcomes a mental block against sitting on the floor. The AMX also does away with the maze ot seat belts ungracefully scattered over rear seat areas, courtesy of the latest safety rulings. The AMX in its original show car form had a small two seater rumble seat and a hinged rear glass that swung up to act as a windshield.

For years cars have been designed like the proverbial cheese box on a raft with the roof area carefully divorced from the rest of the body. Dick Teague prefers a smoother "envelope body" where the roof blends into the sides of the body to form a complete unit. He also provided quite a bit of slant to the windshield and a generous amount of glass front and rear. We asked him why the two impressive pillars flanking the back light and he said "Makes for a damn goodlooking automobile" which is certainly reason enough in itself. The styling design allows two sturdy roll bar-like sections in the front and rear of the roof. Seems that some of the boys got a bit exhuberant, rolled a Javelin and not one piece of glass popped. Since the AMX is even shorter and stiffer in the roof area, it should be even more crash proof.

If things keep up at their present pace, the AMX should carve quite a spot for itself in the performance field. We can only hope that American Motors will avoid the mistakes practiced by other makers, and will keep up the flow of good parts to the little guys that buy the car instead of concentrating all their eggs in a few name baskets This, more than anything else, would insure the success of the AMX. ■





LEFT – Who would have thought an American Motors car would ever carry a 390 CID, 315 hp engine? Carl Chakmakian, among others. ABOVE – AMX is like original Barracudas, with a two-seater plan, room for other cargo behind the buckets.