

Too Much of a Rebel

By Steve Kelly ■ AMC's Rebel Machine reminds us of a great defense lawyer who, despite losing his biggest case, still boasted that it was his greatest courtroom scene. The Rebel Machine is a good effort on American Motors' part, but it isn't a winner. If there's an attempt being made here to chase down the well-known middle-class supercar market with The Machine, nobody but American Motors need worry. Here's a car that lists for around \$3500 at the starting point, but lacks an appealing interior, feels way too big (and is) to be a handler, and is marked with more identity than Peter Fonda's two-wheeler, with about the same taste. Not many of the folks we talked with while we had the car could think of any reason they'd want this car, with 36 months to pay and all the bright paint. Credit is due AMC for moving toward boosting the Rebel; maybe they moved too far.

The Machine's 390 engine is given a rating of 340 horsepower, whereas other 4-bbl 390-cubic-inch AM V8s are rated 325 horsepower. The added 15 horsepower is said to be a result of modified intake and exhaust manifolds. A box-type hood fixture incorporates a vacuum-operated fresh-air inlet to the carburetor. It also contains a hood-mounted tachometer upon which little value can be placed. Its functionality in this spot is questionable. When you're driving into the sun, the tach face can't be seen, because of backlighting and dash-top reflection into the windshield. When the sun is behind you, it quite often shines into the tach, and its glass covering reflects the sun into your eyes. At night, the trouble with it is that the light inside is at the top. It should be on the bottom and closer to the dial face and needle. Neither the hood scoop nor the tachometer interferes with forward vision. Seating position is high enough to overcome any difficulty here.

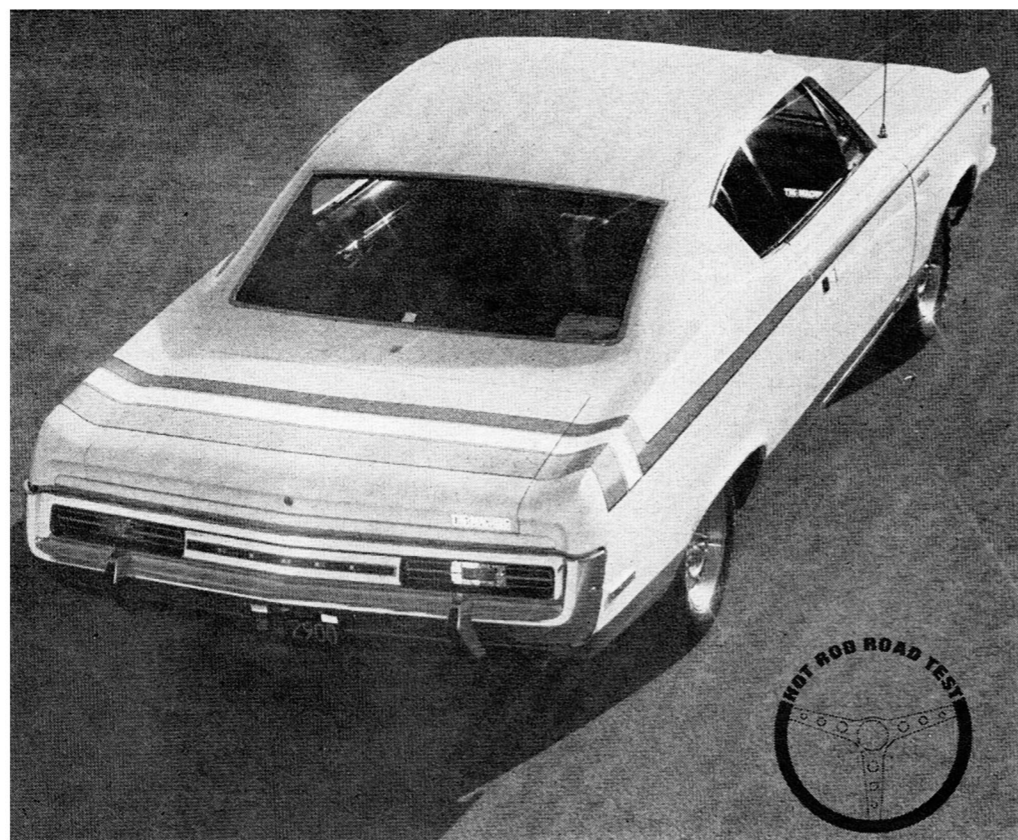
Exhaust report is somewhat impressive at idle, but any noise from the twin exhausts hinting of a short-duration, high-lift cam is only that: a hint. The Machine's cam isn't changed from the stock 390 cam, which has .457-inch valve lift on both intake and exhaust and 266° duration on both. A dealer-available high-performance cam is listed, but the factory can't put it in because it would mean an extra emission control certification, and the hi-perf cam probably won't pass that. It has .477-inch lift and 302° duration. Hydraulic lifters and 1.6:1 rockers are used throughout. The engine is good for around 5000 rpm, yet the secondaries on the Carter-made 4-bbl don't open soon enough (in stock form)

to allow proper use of low- and mid-range torque. When they do open, the engine is near the shift point. The parts-counter AM cam will spin to 6000 rpm, providing the full cam kit has been installed, which brings with it a decent set of valve springs and dampeners to properly keep the valves in motion. Either stock or with the optional cam from a dealer, the carburetor should be richened on the primary side and the secondaries fixed to open a bit sooner.

The shifter is about the only thing that could stand improvement on the four-speed gearbox. The handle is the same length as that used in the AMX and Javelin, which isn't too handy for a tall driver in a car with high seating like the Rebel. I like short shift handles, but this one's about two inches too close to the floor. The Hurst shifter should have received more attention during installation to prevent it from being too stiff, like the one in this test subject. A three-speed automatic may be ordered, although the four-speed is standard.

Over-the-road handling is better than might be expected from such a tall car, yet it still wants to shift too much weight to the wrong side. A .95-inch-diameter rear sway bar is tied to the rear end, and heavy-duty (125-pounds-per-inch wheel rate) coil springs are

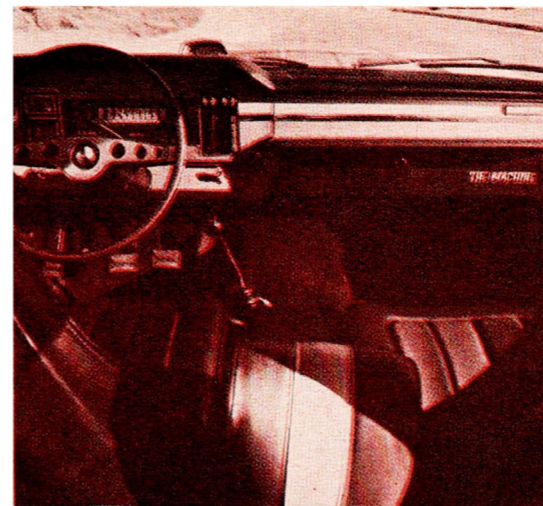
The ingredients are all there, but AM's "Machine" is not the super-car it might've been



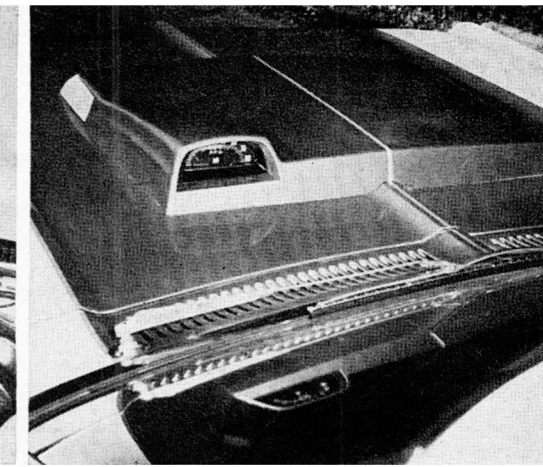
used at the rear. The front end has coils also, 141-pound wheel rate, and a .94-inch stabilizer. All this sounds good, and it would be good if the car were about a foot lower. Variable-ratio power steering is almost mandatory. The manual control box has a mere 6.0 turns lock to lock. The power assist is only 3.2 turns.

The standard rear axle carries a 3.54:1 ratio, with a 3.15 gear offered with automatics. A 3.91:1 ratio and limited slip are optional. The Machine we tested had the 3.91, a pretty good compromise gear. Wheels are 7 inches wide, and have a unique trim ring that is pressed onto the rim. While it looks good, it won't snap off, and it prevents installation of most tire-wheel balancers. The tires are E60-15 Goodyears, and the spare is a collapsible one. The fold-up spare in this trunk makes the luggage compartment a guest room. Brakes on The Machine are excellent. Bendix front discs with power assist are mated with 10-inch-diameter rear drums, also power-assisted. These brakes and the big tires really draw the car down to zero in a hurry. Gives you lots of time to look in your rear view and pray that the poor guy behind you can do as well.

Clutch pedal linkage is long, which is good, since the car needs gentle take-off



photography: Pat Brollier and Eric Rickman



LEFT — Dash is too blank. In the words of one viewer: "Looks like a taxi." CENTER — Hood scoops are flapped open by vacuum control, feed directly to carburetor. RIGHT — Tach is hard to read in this location, and rather optimistic with 8-grand scale. BELOW — Ground clearance is too great. The bright stripes are \$75 extra.

procedures to get it under way through a quarter-mile. The long clutch travel is disconcerting on upshifts, however, and you've got to remember to bring your left foot way up when engaging the clutch. Power shifts help, naturally, but they don't help the rear end. By the time we got this Rebel, the bushings in the rear control arms had been worn loose by quite a few earlier quarter-mile runs. Weight shift to the rear on acceleration start-up, and upon upshifting, is severe. The answer to it is stiffer rear shocks and/or Air Lifts to support the tail end. The problem would become serious if slicks were used.

Best time possible over the Irwindale quarter-mile surface, which exhibited "super bite" the day we ran, was 14.49 seconds at 93.00 mph. Can't say this is all bad for such a boxlike front-ended car, but dropping the car closer to the ground (that ought to stir up a little correspondence from the lift-kit makers), richening the carburetor, bumping the ignition lead a couple of notches, and adding stiffer rear shocks ought to bring this near-4000-pound car close to 14 seconds even. Now if this performance was coupled with a more sedate-appearing vehicle, though one not devoid of personality, there'd be a greater chance of this AM product providing easy sales

for dealers. As it appears, floor traffic will be good, mostly because of its presence there. The amount of sales generated by it could show up more with other AMC models than with The Machine. Of course if this should happen, then the car is a success from the corporation's viewpoint. The Machine is going to be offered in 14 different colors, with or without a tar-paper (vinyl) roof. Hoods on succeeding models will be flat black finished with silver accents. This exterior availability sounds better and more liveable. All interiors have high-back bucket seats upholstered in pure vinyl, carpeting and a special wood-grain-rimmed wheel with rim-blow honker. There's plenty of space within, though the rear seat head room is scant for six-foot and taller passengers.

It's not pleasant to see anyone or anything fail. Hope we don't see that in The Machine. It may prosper as an effective sales tool in the showroom, but this isn't planned as a limited-edition car. It'll be here for some time. An early proposal within the AMC workings featured the Hornet as the subject of a nearly identical undertaking. The Hornet would've been the wiser choice, but the Rebel got the strongest vote. Someday, if things don't go right, impeachment proceedings may be instituted. ■■

THE MACHINE

VEHICLE . . . Rebel "Machine"
ENGINE . . . 390-cu.-in. V8. 4.17-in. bore x 3.57-in. stroke. 340 hp @ 5100 rpm, 430 lbs.-ft. torque @ 3600 rpm, 10.0:1 compression ratio
CARBURETION . . . Model OWM4 single 4-bbl., 1.56-in. pri., 1.69-in. sec.
VALVE TRAIN . . . Hydraulic lifters, 1.6:1 rocker arm ratio. 2.025-in.-dia. intake valve, 1.625-in. exhaust. Cam timing: 266° duration, intake & exhaust, 38° overlap. Lift at valve: .457-in. intake & exhaust
DRIVE TRAIN . . . Manual 4-speed transmission. Ratios: 1st, 2.23:1; 2nd, 1.77:1; 3rd, 1.35:1; 4th, 1.00:1. Borg & Beck semi-centrifugal clutch, 10.5-in. dia. Dana, live-axle, one-piece housing, 8.88-in. ring gear diameter and limited-slip differential. 3.91:1 final drive ratio
BRAKES . . . Bendix front disc/rear drum, integral single-diaphragm vacuum power booster. 11.19-in.-dia. rotor, 10.0-in. rear drum, 104.9-sq.-in. effective area
WHEELS & TIRES . . . 15-in. x 7-in. steel wheels; E60-15 fiberglass-belted tread tires
SUSPENSION . . . Front: Independent unequal-length upper & lower arms, twin ball joints, lower arm strut rod. Coil spring & shock on upper arm, 1.19-inch shock piston; .94-in. 1040 steel stabilizer bar. Rear: 4-link (control arms) with coil springs. 1.19-in.-dia. piston shocks, frameless-type 1090-grade steel .95-in.-dia. stabilizer
STEERING . . . Saginaw, recirculating ball, variable-ratio gearbox with integral rotary valve. 16-in.-dia. wheel. Gear ratio: 16.0:1-12.2:1. Overall ratio: 21.7:1-16.5:1. 3.2 turns lock to lock. 37-ft., 9-in. dia., curb to curb
PERFORMANCE . . . Quarter-mile (best): 14.49 sec., 93 mph
DIMENSIONS . . . Wheelbase: 114.0-in.; front track: 60.0-in.; rear track: 60.0-in.; overall height: 54.4-in.; overall width: 77.2-in.; overall length: 199.0-in.; shipping weight: 3650 lb.; test weight: 3905 lb.; body/frame construction: unitized; fuel tank capacity: 21.5 gal. (19.5 Calif. cars)