

1968 TOP PERFORMANCE CAR OF THE YEAR OLDS 442



Olds chief engineer, John Beltz, right, accepts the coveted award from CARS Editor Marty Schorr. Top performance 442 sports Ram Air plumbing and a host of internal specialty items. Ram Air option is also available on the 350-cube, 320-hp F-85 "junior supercar."

Oldsmobile Division rams its way to the top of the supercar market with a rocket-action middleweight that's short in wheelbase and long on performance

WITH DETROIT's supercar offerings becoming more and more sophisticated each year, it becomes harder and harder for our awards evaluation committee to check out all the candidates for annual Top Performance Car of the Year honors and single out the winner. When it came time to review all the '68 finalists (17 to be exact!) we shuddered to think of all the problems that would pop up between then and top eliminator time. It proved to be even rougher than we had anticipated.

One by one we wrung them out—on the test tracks and, whenever possible, the street. We checked handling, acceleration, mid- and top-end performance, quality control, comfort and one of the most important qualities in the youth market—image. We even went so far as to check actual engine output of some of the supercars by visiting the top secret engine dynamometer testing rooms, just to see who was fudging. By decision time we actually had over 100 pages of tech evaluation data, plus numerous expense vouchers for weekly commutation to and from Motown.

For 1968, top eliminator honors in our Eighth Annual running of the Top Performance Car of the Year sweepstakes go to Oldsmobile for its super-sano middleweight-with-heavy-weight-punch, the 442. In our opinion, the 442 offers the best combina-

BY THE STAFF

tion of performance, engineering, quality control and image styling in an unbelievably competitive youth market. Not only is styling new for '68, but so is the long-stroke, small-bore 400-inch engine and many parts of the suspension and power-train. It was designed for maximum durability, performance and image, and the finished product is proof-positive that the product planners in Lansing know what's happening. Also new is the wheelbase configuration, which checks in at just 112 inches, reflecting the influence of the long-hood, short-deck specialty cars.

The Olds 442 has always been a top performance vehicle, but has been held back since its introduction in '64 by its price structure, lack of

dealer interest in the performance market, and by its *quiet* styling. The '68 version, however, is far from quiet. It reeks of image to match its go-power and handling qualities. And, eventually, the dealer network should get the message about the spending habits of the youth market.

The '68 442 is not the kind of car you just look at and then talk about its performance. It's the kind of car that must be driven to be appreciated. And we did just that. Hidden beneath its full fastback shell is a wealth of engineering plus-features that immediately transform the luxurious middleweight into a handling and hauling machine when the stops are pulled out.

For '68, the 400-cube 442 is available in four stages of tune to satisfy the buying needs of many different types of image car buyers. The mildest version, which surprisingly is optional and not standard, is a 290-hp affair, better known as the Turnpike Cruiser. It's a combination image car and Highway Patrol vehicle designed for the buyer who wants all the glitz, but does a lot of highway driving and also appreciates fuel economy. It has a two-barrel carb, special camshaft and economical gearing, and sports a Turbo-Hydro shifter. It's really a sleeper in disguise. Standard tune trim is the 325-



Award is presented annually to manufacturer offering top performance machine.



With stripes and Ram scoops, 442 comes off like a ferocious competition car.



Precise handling qualities are due to use of front and rear sway bars, tuned chassis.

THE MOST COMPLETE LINE OF IMAGE MACHINES

hp Turbo-Hydro and 350-hp, four-speed packages which are certainly mild enough for normal driving, yet pack enough of a punch for stoplight stompin'. The top line model is the W-30 Ram Air rated at 360 hp and designed for *maximum performance*

street-strip use. All Ram Air cars are fitted with functional fresh air inlet scoops mounted under the bumper.

While on the subject of hot options, we would like to stray slightly from the 442 and concentrate on the

hot "junior supercar" setup offered by Oldsmobile. It's the cheaper F-85 fastback with an all-new 320-hp, 350-cube Ram Air engine which has an honest dyno rating of 340 hp. It's boss for the guy who's short on bucks and is young enough to have insurance problems. When properly tuned, the "junior rammy" will do a job on the big guys. The reason for this setup's success is the use of ultra-efficient component parts on a small-cube engine. This is the very same combination that *makes* the 283-327 series of Chevy engines. It's also the very same route that Chevy has taken with its Z-28 302-cube Camaro engine. They are using the hottest 327 parts on the *little guy* engine.

In their quest for additional performance, Olds engineers came up with a new power package for '68. They dumped last year's 400-incher for a new breed 400 with a wild bore/stroke configuration. This year they went the long-stroke, small-bore route (4.25 x 3.87) to come up with the magic number. If the engineers had it their way, the 442 would have the 455-inch big car engine. But that's another story.

The go boys at Olds Engineering also changed around the fresh air induction package so that it could be utilized without having to mount the battery in the trunk. Scoops, mounted under the bumper, direct the flow to the Rochester Quadrajet pot. Since running changes are common on race-oriented machines, it would be wise to check with the factory or a hip Olds dealer before ordering a 442 for dragging. Cars built after December will be fitted with improved Stage II hydraulic lifter cams.

Even with stock drum brake package, hot Ram Air boasts respectable stopping power. Front discs are optional, but not recommended for serious strip use. Rear sway bar is key to 442's super handling qualities. Suspension is isolated from body for plush ride.



It's interesting to note that all motors slated for installation in Ram Air 442's are selected from specially-clearanced stockers which are fitted with special cams and heads. However, top performance can't be expected from any Ram Air car fitted with factory *restrictive* headers as these systems are not compatible with the combustion chamber and port design of the improved heads.

Besides the obvious styling and performance plus-features, our evaluation committee was most impressed with Olds' attitude regarding performance engineering. Two years ago chief engineer John Beltz instructed his product engineering staff to pursue a new design approach to powertrain engineering. This program resulted in an engine-transmission-differential combination that gave the Division a clear edge over the competition in overall performance and reliability. Rear ends were beefed, suspensions were designed for handling and ride control, and every effort possible was made to come up with the ultimate consumer performance package.

Part of the engineering program was to come up with a compromise suspension that would be acceptable to both factions. The end result is a redesigned suspension which is so isolated from the body that you would swear the 442 was fitted with a boulevard setup instead of a super precise handling suspension. Now the 442 rides like a luxury car yet retains the handling and traction qualities that originally labeled the car as a top handler.

Another section of the John Beltz powertrain doctrine dealt with the selection of rear ends and component parts. Last year's setup was far superior to the oldtimers which utilized GM middleweight rears. The '67 rear was an Olds exclusive. For '68, all middleweights fitted with 3.42 or hotter gearing are automatically fitted with big car rears with super strong banjos and axles. Gear sets for older 442's however, can't be used in the *latest* model big rears.

The 442 has come a long way since it was released in '64. In those days 442 stood for 400 cubes, four-barrel and dual exhausts. Basically it was

(Continued on Page 77)

Oldsmobile 442 family tree. Latest model is a far cry from the original '64 F-85 with Police options shown at top.



1964



1965



1966



1967



1968

full output of the engine can't be obtained with faulty plugs or tight valve settings, even though misfiring or backfiring are not observed. However, excessive valve gear noise and valve breakage may result from clearance settings that are too high.

When adjusting lifters on the Street Hemi (cold settings), it is very important that the settings are made with each lifter at the lowest point of the cam on the base circle. The procedure used on standard engines can't be used because of the overlap and duration of the special cam. The following procedure will assure proper position of the cam when making valve adjustments. An indicator light can be used in the ignition primary circuit to more clearly define the various positions of the crankshaft. Recommended settings are .028 inches on the intakes and .032 inches on the exhausts.

First adjust ignition timing to TDC and chalk mark TDC and 180 degrees opposite TDC on the front crank damper. Then set the crankshaft so that number 1 cylinder is at TDC and adjust numbers 2&7 and 4&8. Next, rotate the crankshaft 180 degrees in normal rotation until the points open for number 4 cylinder and adjust numbers 1&8 and 3&6. Rotate the crankshaft an additional 180 degrees until the points open for number 6 cylinder and adjust numbers 3&4 and 5&7. Once more rotate the crankshaft until the points open for number 7 cylinder and adjust numbers 5&6 and 1&2. Then reset timing to operating specifications, install the valve covers, and wind it up.

If after all that super tuning you have some spare cash left over, invest in some sensible gears (4.10 is a reasonable ratio for street use), tuned tube headers and a Hurst shifter if you're running the four-speed "garbage disposal" transmission.

The Street Hemi requires far more care and feeding than a comparably-rated wedge engine, but you can hardly beat the big guy's horsepower producing potential.

DRAG COMBO continued

Greer's shop, distance has proven no obstacle to their newly-formed association. Greer will twist the wrenches on both cars, which means that Boyd's little stocker should be a real honker.

Things should really be hot and heavy down south in '68.

OLDS 4-4-2 continued

a dressed-up F-85 with Police Cruiser options. It could handle and haul with the best of them, but it fell flat on its face in the image department. Dealers sold the cars, but wanted nothing to do with them or the owners at the service end. Today the dealers feel basically the same, but the factory has made it easier for the performance buffs to get their hands on the right parts. You can order the lightest coupe with the hottest options right from the standard dealer order book. The only problem might arise when you order the optional 4.66-to-1 gears (4.33-to-1 is the hottest factory setup) which are dealer-installed. It won't be long before custom parts and even complete custom performance vehicles will be available from Olds dealers and specialty outlets.

Regardless of the type of performance you're looking for, Oldsmobile has the package for you. In the "junior supercar" field there's the F-85 or Cutlass S coupe with 350-cube Ram Air power that could very well be the street-strip sleeper of the year. For those with some extra bucks to spare it's hard to top the 442 which combines top perf 400-cube power with superb Olds quality control, styling, handling and performance in the neatest fastback package going. And, if you really want to haul in style, there's the Ram Air model which is the ultimate head turner. That's why Olds got the gold.

JET VETTE continued

tinuity of style, instead of something designed by a large committee where the right hand doesn't always coordinate with the left hand. For instance, the sides of the body are defined by a knife-edge that flows all around the grille at the front and blends smoothly into a full width, high-speed air spoiler at the rear. The same continuity is derived from the ribbed knife edge along the hood and roof as well as from the even flow of lines along the door and rear fender.

Ed Lare's working methods are as unorthodox as his car designs. For instance, contrary to what any self-respecting fiberglass man will tell you about the need for molds to pull smooth parts, Ed makes his pieces out of existing panel section. His work is more akin to that of the old style custom car builder who hunted

WHAT DO THE PROS SAY?



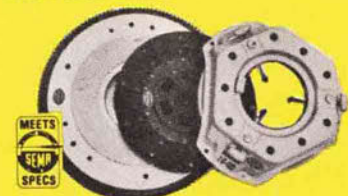
"I won't build a racing engine without using the Schiefer Forged Aluminum Flywheel/Clutch Assembly," asserts Ed Pink.

"If you're really interested in winning, Schiefer has the only flywheel/clutch assembly for street and strip that's built to take it", says Bill Jenkins.



"I've been using and selling all Schiefer products for over 12 years and I've found nothing else even comes close", observes Don Garlits.

"Drag Racing engines need the forged super strength of Schiefer products," says Keith Black.



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