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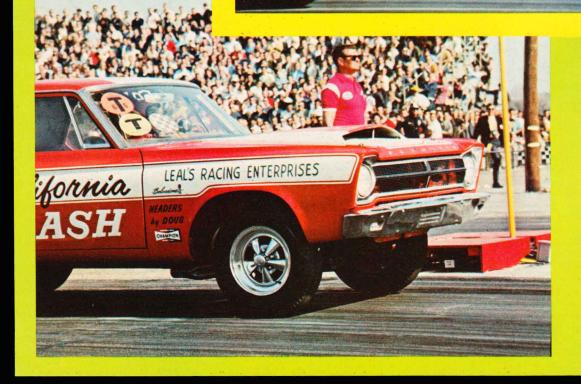
DRAG RACING **MODIFIED STOCKS**

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By Roger Huntington

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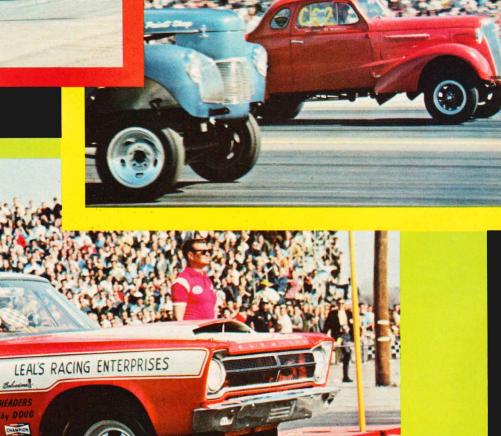
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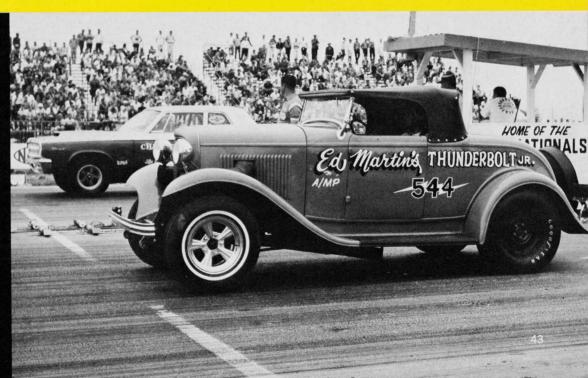
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were created to take in the many modified street machines the fellows drove around. Everything was fine — for awhile. But gradually these gas cars grew into all-out *competition* cars. They still followed the rules of basic "street" machines, but they were so highly tuned and modified that they couldn't possibly be driven on the street. And, what was bad, the young fellow with the mildly-modified street job didn't have a chance against the fully-modified gassers. Interest in the gas division began to dwindle.

This is when National Hot Rod Association officials stepped in and dreamed up the new "Modified Production" division. This is just what the name implies — a new class for mildly-modified stock cars. It's for the guy who likes to do a little tinkering and improving on his stock passenger car, but who has to use it for everyday transportation. It's the only division in the NHRA rulebook that permits extensive modifications to a production car — but which keeps out the all-out competition cars. It's really a class for modified street machines.

Maybe you'd better think this one over carefully. This might be just the class for you. The "MP" division is still quite new (1964), and a lot of the fellows don't really appreciate its possibilities yet. But the popularity is growing fast. Competition in the MP classes was really swinging at the NHRA Nationals at Indianapolis last fall. Run after run was finishing fender-to-fender in the lights. This is where the fun is in drag racing.

Let's have a closer look at Modified Production racing.

First, the problem of rules and regulations. This was a real challenge to NHRA officials, to come up with a set of rules that would give the boys a fairly free hand in their modifying—but would still keep out the all-out competition car that wasn't suitable for

street driving. This took a lot of brainbusting. But here, very briefly, are the principles of these new MP division rules:

The cars must run full bodies (including bumpers) and full interior upholstery, with only minor customizing permitted on the body. No special fiberglass body panels or plexiglass windows are permitted. Lightweight bucket seats can be used, but they must be fully upholstered, and dress-up panels must be used in back if the rear seats are omitted. In other words the body, inside and out, must make a practical presentable street machine. Also the car must carry full street equipment. Like lights, horn, generator, windshield wipers, mufflers and tailpipes, starter, full-size radiator with an operating water pump to circulate the water and a fan to draw air through the radiator. Furthermore, all this equipment must be connected and running when the car races. No removing fan belts. And the car must be able to start on its own starter and battery. No push starts are allowed in MP. NHRA officials are striving to require cars that are truly "streetable" in this division. Theoretically, you could take any of these cars off the strip and drive it for an hour through downtown traffic with no problems!

And modifications are quite limited on the chassis. This was where we got into trouble on the gassers. The boys started cobbling up the chassis so bad that the cars would hardly have been streetable even with stock bodies and engines. In the new MP division you can't shove the engine back, or move the wheels forward, to get more weight on the rear wheels. The center of gravity can't be raised for more front-to-rear weight transfer by raising the engine in the frame - or raising the frame on the suspension. The minimum wheelbase allowed is 100 inches. with no wheelbase alteration. You



Mustangs with 289 engines are popular in C/MP (minimum 11.00 lbs. per cubic inch). Minimum weight for 289 cubes is 3180 lbs. ET's in the mid-12 seconds at 110 mph are common in this class.

Ford 289 engine in Fairlanes and Comets is also popular in C/MP class; or the 221 or 260 cubic inch versions of this engine can run D/MP with this car weight range.



can't chop out the front independent suspension and put in a light tubular axle. Suspensions must remain basically as stock. Full transmissions are required. And finally, "on-the-street" type tires — same as required in the stock classes — must be used. These must have the two full circumferencial tread grooves, with a maximum tread width of seven inches. These may not be exactly street tires, but it eliminates the high-priced dragster-type slicks.

The NHRA rules allow quite a lot of freedom in the engine room. You can use any basic American production engine in any American chassis. About the only place they limit you on engine modifications is in the area of exotic carburetion systems. Engines are limited to two four-barrel carbs or three two-throats. No multi-carb systems, Weber carbs, fuel injection or superchargers. This is where a lot of the money goes in the all-outgasser engines. But otherwise you can go as far as you want inside the engine - hot cams, porting, big cubes, stroked crank, compression, special ignition, exhaust headers, etc. The hot rodder has a good chance to use his ingenuity here without getting into the high costs of the exotic fuel injections and superchargers, and without having to compete against cars that have this stuff. And, very important, engine swaps are permitted, and even encouraged. A lot



A promising combination for D/MP is the 265-cubic-inch Chevy V-8 engine in '55-'57 Chevy station wagon body. This makes minimum weight of 3450 lbs. easily, and station wagon body gives more than 55 per cent of total weight on rear wheels for maximum off-the-line traction.

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Needless to say, the MP classes are based on car weight per-cubic-inch of engine displacement. This is the only practical way to classify cars with modified engines. We have four top classes for the stronger cars with late V-8 engines. Then the two bottom classes (E and F) are for non-super-charged flathead V-8's, in-line six and eight-cylinder engines with stock-type heads, opposed sixes (like Corvair),

and pre-1960 four-cylinder engines with any type of head. In other words you can use most of the older engines and late sixes in these bottom classes, but not very strong '61-'63 four-cylinder Tempest engines (which would gobble up the classes because of their huge ports and valves).

Here's how the class divisions are

A/MP - 7.00 to 8.99 lbs. per cu. in. B/MP - 9.00 to 10.99 lbs. per cu. in. C/MP - 11.00 to 12.99 lbs. per cu. in. D/MP - 13.00 or more lbs. per cu. in. continued on page 83 were created to take in the many modified street machines the fellows drove around. Everything was fine — for awhile. But gradually these gas cars grew into all-out *competition* cars. They still followed the rules of basic "street" machines, but they were so highly tuned and modified that they couldn't possibly be driven on the street. And, what was bad, the young fellow with the mildly-modified street job didn't have a chance against the fully-modified gassers. Interest in the gas division began to dwindle.

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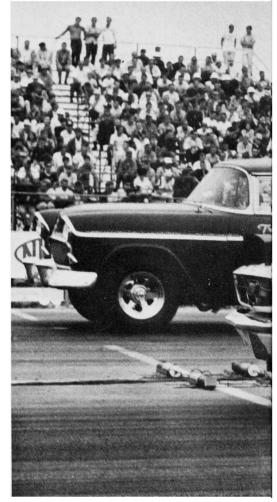
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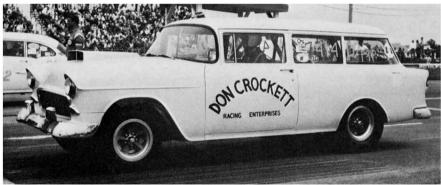
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continued from page 45

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Now let's consider some of the basic car combinations that are most popular in these various classes now, and that might show promise for the future.

Right now the top A/MP class is mostly dominated by late model Super/Stock MoPars with steel bodies. Bill Jenkins won A/MP at the NHRA Nationals last fall with a '65 hemi Plymouth, with a winning time of 11.11 ET at 130 mph. This is a very practical class for some of these cars. It's a haven for some of the shortbudget guys who can't fight the professional drivers in factory cars in A/FX. And yet the low limit of 7.00 lbs./cu. in. permits you to lighten a 426-cu. in. car to just under 3000 lbs. The minimum weight in Super/Stock is 3400 lbs. So a lot of the boys who have lightened their Super/Stocks below the legal limit for match races are now running them in A/MP at the big NHRA championship events, rather than try to sneak illegal ballast for 3400 lbs. Finally, the A/MP class is a good place for some of your older '64 and even '63 Super/Stocks that weigh down in the area of 3200-3400 pounds.

The MP rules allow aluminum or fiberglass body panels if they were factory-installed. So these older S/S'ers can use them, whereas they aren't legal in S/S. So there are lots of possibilities for late model Super/Stocks and even A/FX class cars in A/MP.

The low limit in B/MP is 9.00 lbs./ cu. in. Here a 426-cu. in. car would have to weigh a minimum of 3840 lbs. This is out of the range of Super/ Stocks, unless they use illegal ballast. So here you will find a lot of late 409 Chevrolets, 406 and 427 Galaxies, and a few 426 MoPars with full standard steel bodies. Any of these cars make this range of 3700-3800 lbs. without ballast. They are essentially late Super/Stock engines in standard full-weight bodies - actually the way you get a car when normally ordered through from the factory. The models to beat here would be late 409 Chevs, 406 and 427 Galaxies, and in 1966 you see something of the new Chev 427 Mk. IV engine and the new Dodge-Plymouth street hemi. It's hard to predict which engine will be on top at the end of next season. A 409 Chev won the class at the NHRA Nationals

The C/MP class has a low limit of 11.00 lbs./cu. in. Here we're getting into much smaller engines. A late 327 Chevrolet would fit very nicely here, with a minimum weight of 3600 lbs. In general, late full-size cars that weigh in the range of 3500 to 3900



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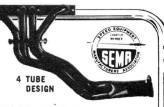
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lbs. could use engines of 320 to 350 cu. in. Certainly the 327 Chev would probably have the most promise here. But more and more fellows are running lighter compact cars with smaller engines in C/MP. The 289 Ford engine in Fairlanes and Comets is a popular combination, and also the 283 Chev engine in the Chevy II or Chevelle, or even the 273 Chrysler V-8 in a Valiant or Barracuda. Engines in this displacement range call for car weights around 3000-3100 lbs. in C/MP which all these combinations can meet. And the performance potential of these smaller cars and engines may actually be better than the bigger cars. Not only does the shorter wheelbase give better weight transfer and traction, but you can wind a smaller engine tighter and get more HP per cubic inch.

We also start to see some of the older cars in C/MP. For some reason you don't yet see many older cars

in the two top classes (though this could change quickly). But here in C/MP, for instance, a popular combination is a 283 Chev engine, bored 1/8 to 301 cu. in., in a '55-'57 Chev body with a minimum weight of 3300 lbs. Beautiful combination. The small Chev engine has tremendous HP-percu. in. potential, and the 115-in.-wheel-base '55-'57 Chev series had good weight distribution and traction. Some of the boys get a jump on traction by using older Chev station wagon bodies, to get more than 50 percent of their weight on the rear wheels. Off the line bite is slightly special. This '55-'57 Chev package is coming on strong in the MP classes, just like it has in the lower gas classes.

The D/MP class has its low limit at 13.00 lbs./cu. in. Here, in effect, you have to use a little engine in a big car. The early 265-cu. in. Chevy engine is popular (using late performance equipment of course), and the



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minimum weight with 265 cubes would be 3450 lbs. The 265 Chev engine is frequently used in the popular '55-'57 Chev series to fill this bill. Or some have run the early 221 Ford ('62) in a Falcon - or the 260-cu. in. Ford block in a Fairlane. Some have even gone to the 289 block in a Galaxie. In fact this combination won the C/FX class at the last NHRA Nationals, where we see car combinations somewhat similar to the C/MP and D/MP classes. The 273 Chrysler engine in heavier Plymouths and Dodges has also had some attention here. Lots of possibilities.

In the E and F classes, for the flathead V-8's and in-line sixes and eights, the popular engines would be the Chrysler slant six, Falcon and the late Chevrolet six. These modern six-cylinder designs have better combustion chambers and bigger valves and ports in relation to cylinder size than the older designs like the Buick straighteight and GMC six-cylinder truck engine (that used to be popular). Also they'll wind tighter. (Although the Chrysler slant six goes against theory by using a relatively long stroke and high piston speeds). Anyway the guys are definitely getting more useable hp per cubic inch from these late model sixes than from the older in-line Buicks and GMC's that used to dominate the old-engine classes.

Incidentally, a word about speed equipment for these six-cylinder engines: a lot of fellows have the idea that you can't buy anything for these basic "economy" engines. It isn't true. The California speed equipment suppliers have been quite active in developing special stuff for the late in-lines. There is always a certain segment of the performance market that wants to hop them up to get a better performance-economy compromise for longdistance highway driving. And also there are a number of amateur and professional racing organizations that restrict engines to in-lines. Guys have built up all-out competition engines based on the late Chev and Chrysler sixes, Falcons, Studebakers, Ramblers, etc. So the hot rod industry has multicarb manifolds, modified heads, hot cams and valve gear kits, forged pistons, stroker cranks, hot ignitions, and the whole works for some of these engines. Maybe you won't find the wide selection of brands that you do for the popular V-8's, but the necessary stuff is there to develop well over one hp per cubic inch on gas with these "economy" engines.

We can highly recommend that you consider these lower MP classes carefully before you start building. You can build up a really hot six quite a bit cheaper than you can a V-8. And there's a lot of fun to be had here. The current NHRA records in these classes have ET's in the 13's at around 100 mph, set mostly with late Darts and Valiants.

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