

Y-BLOCK SHOOTOUT TIPS PART 7: FREE E.T. by Bob Martin

Weight. Obvious thing is to remove all extraneous weight out of the car. *100# of static weight is worth a tenth of a second.* You can run less than a full tank of gas - unless you want the traction at the rear wheels – but don't run yourself out of fuel – check on it between rounds! **Rotating Mass.** Next obvious is putting the lightest rear wheels and tires on the car. *10# of dynamic weight is also worth a tenth of a second.*

Tire Pressure. Increasing your front tire pressure to 40 psi (if they can take it) decreases your rolling resistance. If you race with street radials, be careful about going below 28 psi in a heavy car - probably want to keep it a bit higher. Try them out on light concrete and make sure you have a full rubber patch. Too little air and they will cup and you won't see black in the middle. Too much and you will be riding on the crown and the patch won't go all the way to the edges. Get this worked out before you go to the track. And get a good tire gauge. One with a release button so you can compensate for the tire on the hot sun side - park so they are even or cover one up. The hardest tire (with the highest pressure) will break loose first with an open rear end. Wash and **WAX** the car. A good wax job lets the air pass over the car - not stick to it. Keep the dust off it between rounds. **Engine (& transmission) Temperature.** Letting the Y-Block cool down between rounds helps thermodynamic efficiency. That's OK for a quicker time slip, but during Bracket Racing you always want to be at the same temperatures for consistency. Some engine combinations like certain temperatures – find yours!

Weather. A day with a high barometer reading and low humidity and cool temperatures is the day you want to pull out all the stops. Drag a weather station (Barometer/Temperature/Humidity) with you and record what it's doing at every race date. You can learn a lot by referring to previous history. Get a **Racing Log Book** and fill it out. JEGS has the best right now, but SUMMIT and others are better than nothing. Nothing works if you keep them clipped together, but the log books can put a lot more information in your face. I made one for the Y-Block Nationals & Shootout (& Orr Racing) for the best of both. **Lubricating Fluids.** You can run with less oil in the pan so you don't drag the crank through it. But be careful here! You can also put synthetic oil in the motor AND the rear end for a bit less friction. Getting into the nitty gritty here. Make these a last resort if you REALLY need a quicker time slip. Remember that Bracket Racing is not about quick time slips. Consistent time slips and good reactions is what Bracket Racing is all about. And the slower car is always ahead until it's passed - preferably after the finish line.

Shift RPM. Turning up the rpm does not always work - don't get caught up in it. Know your power range and stay in it. Shift only high enough so that you don't drop out of your power range. Everything else is wasted. Shifting at lower rpm's insures the best chance for everything to work as planned. **Effective Gear Ratio.** After you base-line the car, then you can play with gearing and tire size. You will be surprised what gearing will do for you – both at the track AND cruising. If OD is in your future plans, you can treat yourself to some performance gearing. Tire size is the cheapest and easiest to make effective gear ratio changes. If you can borrow some short 26" tall tires and try them, you can get a feel for what gear you might want to settle on.

Automatic Transmission. I watched Harry Hutten and his '60 Mercury 312 close on this because I thought I might switch to an automatic - but I'd rather stay with the 4-speed at this time. He found that unless you have your motor hopped up a bunch, the higher stall speed converters don't gain you much. Just get a good one. He set up an FMX with a ratchet shifter - and hits the gears hard. Put in a shift kit to tighten up how your tranny responds to gear changes. **Rear End.** If you have an open rear end (no posi or locker), you want to avoid the water box / burnouts. If you do use the water box, remember that only one tire will spin. You have to do a second burnout to dry the other tire. If you use street radials, DON'T do the water box - you'll drag water up to the line with you and you'll probably turn the tires on the start off the line. Also, an open rear end spinning one tire at a time really gives the spider gears in your rear end a workout. Consider posi-traction, a mini-spool, or even a full spool (locker) if E.T. is your priority.

Base-Lining your Car. For any test & tune session, make three passes to base-line the car before making any changes - then change only one thing at a time and make three passes on the change to see the overall effect or trend. With regard to distributor timing, sneak up on it, maybe a few degrees at a time. If you start popping back thru the carb, back it off, you went too far on your setup, or something else is happening. Fresh plugs. Learn how to read them. The correct way to read them is to shut the car off immediately after the run (don't even drive it back the return road), pull a plug that's easy to get to and read it. If the ceramic is white you can stand more fuel (jet size) until it's light brown. If it's dark, grey, or black and sooty, less fuel. More fuel is safer than less fuel, as less fuel runs the motor lean, generates more heat and you can burn a piston if you try something without following up to see what you REALLY did. I can't really say enough about jetting, because it can be weather related. Relatively low HP motors (like us "Streeters") are not as affected as higher

performance machines. Once you find the "right" plug / jet relationship, stay that way and dial the car in accordingly. I don't mess with my jets any more - it really doesn't affect my present motor combination that much.

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