

Another thing to be aware of there are a lot of new designed high velocity headers being used in racing and their purpose is to pull more air and fuel thru the carb and into the eng. that is all good when you are accelerating up but in circle track racing you have two off or mid throttle corners and these headers off throttle will pull unwanted fuel into the engine they act just like a vacuum cleaner and when you go to accelerate off the corner the eng can be rich with fuel and create a hesitation or blubbering. Just remember that in the off or part throttle carb positions are very critical in circle track racing and just because a carb works perfectly on the dyno it may not work so good on the race track. learn to read your spark plugs and don't be afraid to change them as the engine will always perform better with new spark plugs. If you have this problem of blubbering off the corner let your carburetor guy know that you are using high velocity headers so he can tailor the lower blade angles of the carb to pull less fuel these days you need a carb tailored for each individual eng. to be perfect. Every carb guy seems to think differently on how a carb is supposed to work and if you get hooked up with a carb guy that thinks the dyno is the holy grail of tuning you could be in for some problems with your circle track engine.

Tips on spark plugs always use a plug hot enough that it wont foul out at low rpms and a plug that wont discourage you from changing them every few races because of cost . Don't buy into the latest design racing plugs with v cut ground straps or center electrodes these plugs do nothing but skip and misfire. I like to see just a plain design non resistor non protruding cheap plug autolite, champion, NGK ,in that order. The autolites and the champions with the short ground straps are the best to use in most racing so as to not get pre ignition do to the ground strap getting so hot that it glows.. Spark plugs in a high cylinder press engine for racing don't last like they do in street vehicles they are subject to extreme pressures and fuel with extreme amounts of lead to suppress detonation and the spark plugs have to fire under these conditions all of the time. After just one night of racing on a brand new spark plug it will require an additional 6000 more volts to fire that spark plug under the same load. That is why some plugs will run a little longer than others before they start to misfire and have intermittent skips. Have you ever heard a car go out on the race track for the first time of the night for warm ups and the engine is popping out the exhaust, And after about 1 to 2 laps the car is sounding normal, 99% of the time That is from a fuel fouled spark plug, or the engine / spark plugs are not up to temperature, what is happening is that the lead in the fuel is acting as a conductor for the electricity to flow down the side of the porcelain insulator and the electricity goes to ground instead of jumping the gap when the cylinder is under a load and is more subject to happen with colder number spark plugs with wide plug gaps. note that this problem only happens with leaded gas and will never happen with alcohol. When ever you have a problem with the engine skipping and misfiring always check the spark plugs 1st for color, make sure the porcelains are clean and not real dark the first race on new plugs they should show a flat white and the next race they should be a slight tan color. Check for possible broken porcelains do to detonation, to much timing ,or the ground strap closed up from a piston hitting it. if the ground strap is bent then the spark plugs need to be indexed and the next time the engine is overhauled have the engine builder notch the pistons for spark plug clearance which will also make the engine perform better, if the engine is really breaking up so bad that it wont take any throttle but will idle normal and

run partial throttle check for water in the fuel. when you get water into the carb it will make the engine sound like the rotor broke off and the ignition is out of control. 3rd if you experience a slight little pop or mis towards or at the end of the straight 99% of the time the engine is leaning out and needs more jet in the carb. if you have one cylinder that is skipping . check the plug, check the valves, check the plug wire, check for a cracked cap, injected motors check the nozzle for that cyl..

Another tip for everybody who thinks that a ignition rev limiter will save or stop your engine from revving to the moon when the drive line breaks. wrong! I have tested on my ignition machine all kinds of ignition rev limiters and they all do what they are intended to do. you can run the machine up to the rev limit and it will stop the ignition. But I can tell you from my own experience that a ignition rev limiter will not stop a engine from over revving when the gas pedal is down and the drive shaft breaks or when the rear end jack shaft breaks, even if the ignition is shut off the engine will rev so quick that it will run right thru and there is nothing that will stop the engine but time. So save your money kids. I don't sell or promote ignition rev limiters any more after two times that I broke the drive line and after several discussions with other car owners and engine builders. what I found to be the only cure for me was the light weight titanium ex valve train with a lot of piston to valve Clearance.

Sprint car engines are very hard to tell if you have an ignition or fuel problem they both will sound the same. as long as i have been in the mag business, 32 years,. 70% of the supposed problems with mags come from alcohol fuel injected engines, not gas carbureted engines. and 90% of those fuel injected mags with out question didn't have any problems, but it is still worth having the mag inspected and serviced, but what aim saying is these fuel injection systems have many areas to go bad along with the alcohol and weather changes, far more than any mag could have a problem. a magneto doesn't care what the weather is but the alcohol sure does. the cars running on gas and a carburetor run week to week all year long with out any problems. alcohol fuel injected engines are constantly having to adjust the fuel system to keep the engines from being to rich or to lean. A rich engine will sound loud a lean engine will sound quiet and will have an exhaust pop sound. and when the weather is humid the engines will be flat. there is many components to a fuel injection that can go away and change from race to race. the worst thing that can happen with fuel injection is have it sit and not be run do to corrosion from the fuel. if the engine is not going to be used after the last run for three days the entire system needs to be cleaned and lubricated.