

# CHASE'N RACE'N

## ILLUSTRATED

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### DuQuoin Indoor

Texas youngster shines in Illinois



Alabama Kart Show  
Doster Comm. Ctr.  
Prattville, AL

Booneville Kartfest  
Prentiss County Arena  
Booneville, MS



Plus a whole lot more!!!



# GRASS ROOTS

## TECH BARN

*with Jimmy Rivers*

## So You Wanna Go Kart Racing...

Over the last couple of years, a new engine has been introduced to kart racing: the Box Stock Clone. This engine provides the racer with the opportunity to go racing at a reduced cost. The concept of this class is to provide the



entry level, or budget racer, a less expensive option to get started in racing. Even though this has changed a bit since the engine's inception, the basic idea remains intact.

In this month's installment of the "Grassroots Tech Barn," we will explain and illustrate how to take a Box Stock engine from the box and install the necessary components to get it ready to bolt onto your kart.

For our parts list, we will need the engine, a top plate with fuel pump, pulse fitting for the pump, filter and filter adapter, exhaust assembly, and chain



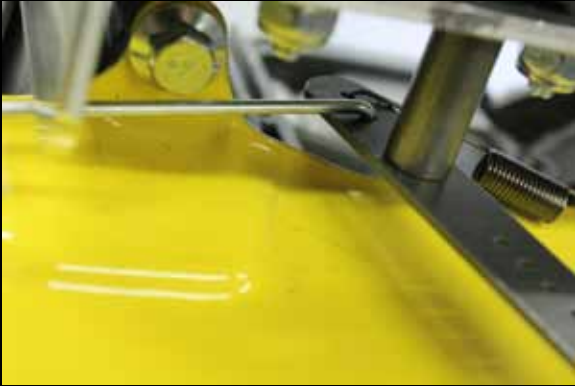
guard. It will also be necessary to drill the main jet in the carburetor as well.

Let's begin by drilling and mounting our fuel pump to the top plate. Attach the pump to the plate using the supplied mounting holes, and secure with flat washers and locknuts. Pay attention and make sure the pump inlet is pointing toward the front of the engine and the pulse nipple points toward the rear. Use the factory supplied throttle rod to link the throttle shaft and the swing arm on the top plate, and use the factory return spring to bring the throttle position back to idle. Sometimes a slight bend is needed on the throttle rod to keep in position as the throttle snaps back. Use the supplied hardware with the top plate to attach securely to the engine.

To pulse the pump, we must have a vacuum source. Rules require pulsing from the valve cover only, so we must attach a nipple. For this, we have a couple of options; drill and tap for a







barb fitting, or drill a 1/2" hole and use a kit with a rubber grommet and a push in nipple. Mark and drill, keeping the fitting as close to the mounting flange as possible. Be mindful of the location of the spark plug when marking your hole, improper placement may not leave you enough room to get the plug boot on.

Attach a short length of fuel line between the pulse nipple on the pump and the newly installed fitting in the valve cover. Cut the small factory hose attached to the carburetor at the end of the nipple. Stretch the inner diameter of the 1/4" fuel line with a pair of needle nose pliers to slip over the remaining hose at the carb, this will provide a leak proof connection. Attach the other end to the pump, zip tie all your connections, and our plumbing is complete.



Slide the filter adapter onto the carburetor mounting studs. The adapter has a definite top and bottom, and if improperly mounted, the air bleeds in the carb will be obstructed and engine performance will suffer. Gently tighten the locknuts to hold the carb and the adapter in position. Using a 10 mm



wrench, remove the bolt holding the float bowl onto the carb, then take a small blade screwdriver and remove the main jet. Jet size may vary by location, but as a general rule, .038" in winter and .037" in summer is the optimal size. Replace the jet and the bowl, gently tightening the bowl nut.



Attaching the header and the chain guard require no explanation, just be sure to use a support brace to the muffler. This will keep the muffler from loosening and unscrewing from the header. Double nut the header studs for security. Spray your air filter with filter oil, install, and the engine is complete.

This outlines the needed steps for you, the "Grass-



roots Racer", to prepare your Box Stock clone engine for competition. Stay tuned, as in future issues we will take this engine all the way to the track, bringing you every step of the way. See you next month!

