The following Tech Updates were approved by the Board of Trustees and are effective immediately.

Whiteland Raceway Park Update:

We will still allow the Comer C-50 and allow C-50 parts in a C-51 or C-52, we will no longer tech the jet settings as stated below, and we are choosing to continue to enforce the required gear ratio of 10/89. This tech update below should be used for a reference if you are running a Comer C-51 or C-52 and need more information on how they will be teched moving forward.

621 – COMER C51 ADD: COMER C52

621.0 COMER C51 AND COMER C52

The engine is to remain stock as supplied by the manufacturer. No grinding or aftermarket accessories are permitted except those specified. The only changes permitted are those that will promote equality among competitors rather than increasing performance. No C-50 parts are allowed in C-51 or C-52 engines. Divisional series and local clubs withing to allow the C-50 engine can refer to the 2012 WKA Technical Manual

The relevant specifications are somewhat different for the C-51 and C-52 engines because of the difference in the stroke length. The C-51 engine has a stroke length of 1.486" (38mm) and the C-52 has a stroke length of 1.575" (40mm). The C-51 has a displacement of 48cc and the C-52 a displacement of 50cc. The stroke of the crankshaft is the factor that positively identifies which engine it is. Only C-51 crankcase, cylinder and piston may be used with a C-51 crankshaft. Only C-52 cylinder and piston may be used with a C-52 crankshaft.

To positively determine which engine is being teched, use a dial indicator fitted to the spark plug hole to measure the stroke. Zero the dial indicator at the bottom dead center then measure the stroke. The C-51 engine stroke will be at or just under 1.486". The C-52 will be at or just under 1.575".
Some of the specified measurements are different for the C-51 and C-52 engines. To maintain parity in performance, some modifications are allowed to the C-51 cylinder and piston that are not allowed for the C-52.

621.1 **Carburetor**:
Dell Orto model SHA-14-12L only. All parts must be "as cast". No repairs to broken carburetor bodies. Stripped screw holes may be repaired with thread inserts or the next larger machine screw may be installed.
621.1.1 Venturi: 0.475" No-go venturi.

621.1.2 Jet Size: Non-tech
621.1.3 Atomizer Tube: Bottom hole, (float bowl side) 0.035" No-Go. Top hole (slide side) 0.049" No-Go.
621.1.4 Intake Pipe (Manifold): Intake pipe must be stock. No polishing.

621.2 Air Filter: An aftermarket fabric and wire mesh type filter may be used to replace the factory air filter. Flange inside diameter 57mm. Filter base diameter 89mm. Filter length 102mm. Flange length 16mm. Flange style centered. Filter must remain unmodified.

621.3 Combustion Chamber: OEM shape. Volume to be checked using a LAD cc measuring plug, the .310 washer, glass burette and Marvel Mystery oil. Combustion chamber to remain as manufactured. All threads are to be intact. If a thread insert is used it must be full length. Any attempt to bypass the intent of this rule is illegal.
C-51 minimum combustion chamber volume is 7.4 cc
C-52 minimum combustion chamber volume is 7.7 cc
(Please note that this will give both engines a 6.49:1 compression ratio.)

621.4 Cylinder: With only the exception listed below, the cylinder liner and aluminum cylinder must remain "as cast".
C-51 engines only; the top of the exhaust port may be ground to obtain the minimum allowable exhaust port height. Only the top edge of the port may be ground, and the top edge must be straight across and shaped identical to the original cast port. The port may not be widened.

621.5 Port height check: Install dial indicator onto cylinder head and zero at Top Dead Center. Insert 3mm rod, no longer than 3" long approximately .25" (6mm) into appropriate port. Rotate crankshaft until piston makes gentle contact with the rod. Release the 3mm rod. It is to remain supported. Read dial indicator.

C-51; Exhaust 1.204" minimum (112 degrees ATDC with 3mm rod), Intake 0.417" maximum (17 degrees ATDC with 3mm rod)
C-52; Exhaust 1.206" minimum (114 degrees ATDC with 3mm rod), intake 0.435" maximum (17 degrees ATDC with 3mm rod)

621.6 Cylinder base gasket: A gasket must be in place. There is no minimum thickness and multiple gaskets may be used to adjust tolerances.

621.7 Piston: Must be OEM and stock appearing. A C-51 piston must be used in C-51 engines and a C- 52 piston must be used in C-52 engines.
C-51 engines only; the intake side of the piston skirt may be ground or filed to achieve the maximum allowable intake timing. No other alterations are permissible.

C-52 engines only: The minimum length from the bottom of the lower ring land to the bottom of the piston is 1.155".

621.8 Rings: Maximum ring gap is 0.040". Rings cannot fall through cylinder. Both rings must be installed.

621.9 Crank pin and wrist pin: OEM
621.10 Main bearings: Brand is non tech. Must be same size as OEM. Self-aligning and nylon cage

bearings are permitted.
621.11 Seals: Must be installed as OEM. Brand is non-tech.

621.12 Ignition: Timing shall be checked with a dial indicator as per published procedure. The flywheel key is non-tech. Timing for C-51 and C-52 engines is a follow.
C-51 engines; 0.050" to 0.063" (approximately 19 to 21 degrees BTDC)
C-52 engines; 0.055" to 0.067" (approximately 19 to 21 degrees BTDC)

621.13 Spark plug boot: non-tech

621.14 High Tension lead (Plug Wire): non-tech

621.15 Spark Plug: The spark plug brand is nontech. Plug reach must be OEM.

621.16 Muffler: OEM C-50, C-51, or C-52. Exit hole's maximum height is 0.110 no go and the maximum width is 0.475" no go. One OEM exhaust gasket. Machine screws must be tight.

621.17 Clutch: Clutch must be run as manufactured. Shoes must have a "Comer" name cast into them. Shoes must be stock appearing. No polishing or removing of metal. Minimum allowed width of shoes and assembly 0.065". Shoe length maximum diameter 0.430" and 9 coils. Wire diameter 0.075" to 0.080".

621.17.1 Chain and gearing: A comer 10 tooth clutch drum for use with 219 chains is required. The axle sprocket is non-tech (any size permissible) to allow new tuners to learn how to match the gearing to the power curve of the engine, track size, and configuration as in any other class

621.18 Blower housing (shroud): Taping of blower housing is permissible. Replacement fasteners are allowed.

621.19 Gear Ratio: No Gear Ratio Rule for the WKA National Series. Promoters of local series still reserve the right to continue or implement a gear ratio rule. Suggested Gear is 10/89.