

# **PRD 125CC CONTROLLED TAG RULES (2015)**

<u><b>CLASS</b></u>	<u><b>AGE</b></u>
<b>*Junior I</b> PRD TAG Controlled @ 240lbs to 260lbs	8 to 12
<b>*Junior I</b> PRD TAG Controlled @ 240lbs to 260lbs <b>Intermediate</b>	8 to 12
<b>*Junior II</b> PRD TAG Controlled @ 310lbs to 330lbs	12 to 15
<b>Senior</b> PRD TAG Controlled @ 360lbs to 380 lbs <b>Pilot</b>	16
<b>*Senior</b> PRD TAG Controlled @ 360lbs to 380 lbs	16
<b>*Masters</b> PRD TAG Controlled @ 390lbs to 400 lbs	35

## **\* PRD-USA National Class**

### **GENERAL CLASS RULES:**

Classes will be run per the TAG rules of one of the following organizations with the exceptions, clarifications and modifications listed below. Each series will establish which organizations rules will be utilized.

International Kart Federation (I.K.F.)

World Karting Association (WKA)

The Senior Pilot class is designed for drivers with less experience than the top runners in the Senior PRD class. Entrance to this class must be authorized and will be determined by your competition level.

### **ENGINE:**

Only engines with US serial numbers are legal.

All components must be O.E.M. unless noted.

PRD 125cc water cooled 07 Fireball Engines are legal as homologated.

*Note: no mixing of parts from 05 Fireball Engines with 07 Fireball Engines.*

## **TARGET R.P.M./GEAR**

R.P.M. is limited in an effort to increase competitiveness and engine life. The PRD factory representative or race director, if the factory rep. is unavailable, will call out the gear ratio for all classes. The specified gear ratio will be the base gear ratio +/- one tooth. Each age group has a different target R.P.M., the R.P.M. is established with a single kart and driver on the track alone, race R.P.M. will be higher.

Junior I	13,500 to 14,000 R.P.M. APX.
Junior I Intermediate	13,500 to 14,000 R.P.M. APX.
Junior II	14,500 to 15,000 R.P.M. APX.
Senior/Senior Pilot	14,500 to 15,000 R.P.M. APX.
Masters	14,500 to 15,000 R.P.M. APX.

## **TIRES**

Junior I	4:50 Front 4:50 Rear or 4:60 Front 4:60 Rear
Junior I Intermediate	4:50 Front 4:50 Rear or 4:60 Front 4:60 Rear
Junior II	4:50 Front 7:10 Rear or 4:60 Front 7:10 Rear
Senior/Senior Pilot	4:50 Front 7:10 Rear or 4:60 Front 7:10 Rear
Masters	4:50 Front 7:10 Rear or 4:60 Front 7:10 Rear

## **CARBURETOR:**

Tillotson HL166A, HL166B, HL166C or HL395A ARV per the I.K.F. and WKA rule books are legal for all classes.

**Junior I** will require the use of a PRD-USA/ RLV filter cup with an air inlet hole of 0.462" no go, the hole will remain as manufactured no cleaning, de-burring or any other modifications are allowed. O-ring must be used and functional. The filter cup must be sealed to carburetor. A PRD-USA exhaust restrictor is required and will be inserted at the pipe side of the exhaust header. See the technical director for the no-go whole size of the restrictor. The restrictor will remain as manufactured no cleaning, de-burring or any other modifications are allowed.

**Junior I Intermediate** will require the use of a PRD-USA/ RLV filter cup with an air inlet hole of 0.462" no go, the hole will remain as manufactured no cleaning, de-burring or any other modifications are allowed. O-ring must be used and functional. The filter cup must be sealed to carburetor.

**Junior II** will require the use of a PRD-USA/ RLV filter cup with an air inlet hole of 0.877" no go, the hole will remain as manufactured no cleaning,

de-burring or any other modifications are allowed. O-ring must be used and functional. The filter cup must be sealed to carburetor.

**Senior Pilot, Senior and Masters PRD Controlled** may use a filter cup with a center hole diameter of .880" minimum.

### **HEAD/COMBUSTION CHAMBER:**

Use of the L.A.D. tool is mandatory for CC's  
Combustion chamber diameter 54.10mm +/- .2mm

### **REED/REED CAGE:**

Must remain unmodified. Branded Reeds "PRD-USA.COM" as shown in the PDF are required. The rubber coating on the reed cage may be surfaced to flat.

### **OIL SEALS, BEARINGS & GASKETS:**

Oil seals and gaskets are non-tech. Bearings can be of any brand, must be metallic.

### **CLUTCH/CHAIN COVER:**

**Chain cover:** Only the fully enclosed cover is legal (part number PRD-7159), those with venting that exposes the ring gear are not legal. Use of a third bearing is prohibited. The clutch nut can be of any brand, must be metallic.

**PRD gear plate guard:** The gear plate guard must be installed properly with the ground wire plugged in. This is a pre-tech rule and must be installed at all times when the kart is on the track.

**Clutch:** The 2010 PRD steel on steel clutch and the 2007 PRD clutch will be legal through December 2015. January 2016 the 2010 PRD steel on steel clutch will be the only legal clutch for all PRD 125cc Controlled TAG classes.

**Clutch Drum:** The clutch drum will have a minimum thickness of no less than .11" measured on the 90° rim edge and a maximum inside diameter of 3.360.

### **RADIATOR:**

Only radiators unmodified as supplied by PRD with the engine are legal.  
Only hoses supplied by PRD with the engine and hoses stamped "MRC" are legal (*part #'s PRD-9185, PRD-9191, PRD-9192 and PRD-9193*).  
Water pump must be PRD O.E.M. and axle driven. The water pump may be driven directly by the axle.

### **AIR BOX/INTAKE SILENCER:**

Only air boxes/intake silencers as supplied by PRD are legal and must be branded PRD or RLV. Only the top two holes of the four hole airbox may be utilized, the two tubes must measure 22mm +/- 1mm. Only one drain hole is allowed, cannot exceed 0.250" in diameter. The air filter is optional but recommended.

### **PIPE/EXPANSION CHAMBER AND HEADER:**

Only pipes/expansion chambers/connectors as supplied by PRD are legal. Spec pipe length 16" minimum as measured with a .250" (1/4") tape from the pipe side of the exhaust header flange, around the outside radius of the header to the first weld on the pipe at the major diameter. Only step connector tubing is legal. PRD header o-ring cushion may be installed in the header cup to cushion the flex part. PRD connector wraps may be used. A 1/2" +/- wide ring may be added inside the pipe cup to stop the divergent cone from mushrooming.

### **IGNITION:**

**2012:** Ignition timing a maximum of .215" B.T.D.C. (no minimum).

**Ignition:** Easy Start Ignition System is legal for all PRD 125cc Controlled TAG classes.

### **CYLINDER/PISTON:**

Cylinder overall height as measured from machined surface to machined surface 86.80mm minimum.

Maximum piston size is 54.25mm, maximum bore is non-tech.

### **SPARK PLUG & CAP:**

Spark plug and caps are spec and subject to technical inspection approved plugs and caps are as follows for all classes.

**Spark plug:** NGK standard BR8EG, BR9EG or BR10EG.

**Spark plug cap:** Must be marked with "NGKTB05EMA" or "NGKLB05EMH"

**Spark Plug gap:** Maximum spark plug gap .025". The spark plug base gasket must be in place unless a temperature lead is used.

*With exception to the gap the spark plug is to be unaltered.*

### **ELECTRICAL SYSTEM/BATTERY:**

All electrical components must remain OEM and unmodified.

**Battery:** The YUASA/VRLA-YT7B-BS, WPS/490-2507-YT7B-BS along with the Kartsport battery are all legal for all PRD Fireball 125cc Controlled TAG classes.

## **CYLINDER LEAK DOWN TEST (mandatory):**

All PRD classes are considered “Restricted Classes” (air leakage can cause an increase in performance). This test is used to detect excessive leakage through the engine, engine seals and carburetor. The location of the leak is not important. The test measures a percent of leakage. The engine will not be legal if the maximum leak percentage is exceeded irrespective of where the leak occurs. The cylinder leak down test is performed as follows:

### ***RESTRICTED ENGINE LEAKDOWN TEST***

#### ***Parts required:***

***Cylinder leak-down tester***

***(available from Napa Pt #SER-CLT2 & Harbor Freight Pt # 94190)***

***Calibration tool (available from PRD distributors)***

***Header plug (available from PRD distributors)***

***Filter cup rubber boot (available from PRD distributors)***

***Carburetor plug (available from PRD distributors)***

#### **TECH INSPECTOR:**

**Make sure there are no leaks at the installed plugs or the exhaust gasket. Leaks at these areas should be fixed prior to the test.**

**Calibrate your cylinder leak-down tester. Install the calibration tool to the output side of the tester. Raise the pressure on the primary gage to ten (10) pounds. Read the secondary gage. This is the maximum leakage percent allowed with this gage. This number will vary from gage to gage.**

- 1. Remove the pipe and flex connector from the header.***
- 2. Install the header plug in the header outlet and tighten.***
- 3. Cadet, JR I, JR Intermediate and JR II:***
  - Place the rubber boot over the filter cup and tighten the hose clamp.***
- SR and Masters:***
  - Install the carburetor plug in the carburetor inlet.***
- 4. Remove the spark plug and locate the piston at the bottom of the stroke.***
- 5. Screw the outlet hose of the leakage tester kit in the spark plug hole and connect all hoses in the kit including the hose with the gauges.***
- 7. Attach the air line.***
- 8. Set the initial pressure low.***
- 9. Turn the regulator until the primary gauge is set on 10 pounds.***
- 10. The maximum leakage gauge reading is the percent the calibration tool indicates. Any reading above that percent the leakage is illegal.***

## **PRO RACING DESIGN 125CC CONTROLLED TAG CLAIMING RULE**

Person claiming the engine i.e. making the claim must:

- a. Be entered in the class.
- b. Race the class.
- c. Have raced the class at this current specific series or venue no less than twice previously (eligible to claim in race 3).

A participant may only claim one time per calendar year in each club program, series or venue. The manufacturer or importer reserves the right to claim any engine at any time, anywhere with no exception, including National and Grand National events. This claim will hold preference over all other claims.

Any participant in this claiming class must agree to the current claiming rules of the class. If the participant fails/refuses to surrender the claimed engine, the participant will forfeit all points and will be ineligible to compete in the class for the remainder of the current venue or series program.

Engine claiming will be made to only one race official designated by the series. The claim must be made in writing within 30 minutes after the end of the race the engine is being claimed from. We recommend either the Race Director or the Chief Technical Official. If more than one participant claims the same engine, the participant with the lowest point total of the series or venue will be awarded the claim. The engine being claimed must pass post race technical inspection.

*Please be advised, as a result of the claimed engine passing post race technical inspection it is not implied nor a guarantee the claimed engine is legal or will pass future technical inspections "let the buyer beware" engines are claimed as is.*

After post race inspection:

- a. The person claiming the engine i.e. making the claim will present the Chief Technical Official \$2,000.00 either in cash or a certified cashier check.
- b. If the claim is made by the manufacturer, importer or agent of either, that person will present the Chief Technical Officer with a new engine (including all parts listed in "c") and \$500.00 cash.
- c. The present engine owner will present the Chief Technical Official with the claimed engine less the carburetor. The engine will include:
  1. Reed manifold with reeds
  2. Exhaust header
  3. Intake manifold
  4. Ignition

5. Complete clutch with cover

6. Starter with bendix

The Chief Technical Official will then complete the exchange.

### **INTENT OF RULES**

All of these rules are written with the intent of creating an affordable engine package that can be used from Junior I all the way through Masters.

Any attempt to violate these rules will result in disqualification.