



VIRGINIA DIRT KARTING ASSOCIATION

2025 RULE BOOK

Race Registration

Gates open at 8:00 AM. Practice begins at 10:00 AM. Time Trials start soon after Practice.

Pit Passes will be sold at the tracks for \$20.00. VDKA will approve any changes to this cost and communicate to our racers ahead of time.

All drivers must be a VDKA member. The cost of membership is \$25.00 for the year. VDKA will allow a one-day \$15 temporary membership fee.

Entry fees are \$50 per class. Junior Stars trophy class entry fee is \$30. To run a Pro Class entry driver must be entered in the corresponding points class. There must be a minimum of three entries for a Pro Class to race. Payout will be determined by the number of karts per class.

If at 6:00 PM, if qualifying is not complete, it will be stopped and the races will begin. If qualifying is not completed, for the first event of the season, pills will be drawn to determine starting positions and for any races after that, the current season point standings will be used to set starting positions.

VDKA, though not associated with WKA, will use the WKA Tech Manual for most rules. For Ducar/Hobby classes we will follow the Dyno Cam Rules and the Limited Class separate rules. We have included all these rules packages at the end of the rule book.

Some exceptions include:

- Tire prep will be allowed. **Open flames of any type will not be allowed.**
- Weights: VDKA requires that ALL weights must be double-nutted and the threads of the bolt must protrude approx 1/4" after the jam nut. A nyloc nut or similar locking nut is recommended as the jam nut....All weights attached to seats or similar materials must have a large washer between the head of the bolt and seat....5/16" bolts are the min.size when weight is less than 7 lbs...3/8" bolt is the min size or two 5/16" when weight is 7 lbs or more..... Weights are to be painted WHITE in color....
- Fuel filter not allowed between the fuel pump and carburetor (ALL CLASSES)
- Engine will be teched as raced (ALL CLASSES)
- The front faring specifications (shape of faring and protective strips) will not be followed by VDKA.
- Tires: Reaper
- The Tillotson PK-1B clone carburetors are not permitted.
- All 4-cycle classes will be open dry clutch. (See last page for class structure)
- Air Filters can only filter from the sides of the filter. Air filters with an open end must be taped over to prevent airflow from the end.
- 6" Champ Karts Seat rule will be measured from the middle of seat to left inside of the nerf bar.
- Champ Kart Seat Belts: Belts must have dated SFI tag visible, be in good condition with no fraying or tears, and be no older than four years old.
- Helmets (Minimum Requirements):
 - ADULTS: Snell SA 2015, K2015, M2015, SFI 31.1/2015 or 41.1/2015
 - YOUTHS: Snell SA 2015, K2015, M2015, Snell CMR2015, CMS2016 or SFI 24.1/2015
 - Snell M helmets are not acceptable for ANY Champ Classes.
 - Helmet cameras may not be mounted on helmets in any way.
 - Face Shield::Eye protection is required using a full face shield integral with the helmet.
 - The Race Director or Head Technical Inspector may require any competitor to technical or safety inspection at any time.
- All WKA rule changes, after the initial annual Tech Manual has been issued, must be approved by the VDKA Tech Committee and communicated to the Organization Membership before going into effect.

Race Information

All drivers must be entered into a class before practicing. **No registration refunds after pre-race tech.**

There must be an average of at least six karts in a class during the 2025 season to be eligible for yearend awards. **For championship points, VDKA allows for one drop race, but a competitor must compete in at least 80 percent of 2025 points events in a given class to be eligible for yearend awards for that class.**

Competitors must take the green flag in a race and weigh in correctly to receive points for that race.

Clone Extra Heavy drivers must weigh in at Pre-Tech with racing jacket and helmet, no shoes, for driver 200lb requirement.

ALL DRIVERS 15 and younger must present a birth certificate at their first race or have a copy sent to the VDKA office no later than a week before the race. NO EXCEPTIONS even if you have been racing with VDKA for years.

Relief Drivers

There are no relief drivers allowed in any VDKA race/class.

Reserved Parking

Contact the tracks directly for parking information. The appropriate phone numbers are listed with the Race Schedule.

Track Management

At each VDKA event, that track is rented by the VDKA. While we depend on the track owner/personnel to have the track prepared for the event, VDKA will co-manage the track itself with the track owner/personnel. VDKA will appoint a "Track Management" committee to assist the track owner with decisions related to managing the track surface to help insure that optimum track conditions exist for our competitors throughout the event. Some responsibilities of this committee are:

- Evaluate practice times related to track and weather conditions
- Manage racing surface related to water addition and possible rework for rough track conditions

Kart Numbers

All Karts will be required to have four Legible Numbers on the Kart to be scored, including a rear number panel mounted somewhere behind the rear axle. Having four numbers that are readable by VDKA scorers is a **pre-tech requirement**. If Scoring determines the numbers are Non-Legible, the Karter will have to change the numbers to be acceptable to Scoring before being allowed to participate. Chrome numbers, red numbers on black or black numbers on red or blue are not permitted.

Once a competitor registers a kart number for a class at an event, any subsequent competitor to register for that class with the same number will have to modify their number something unique to the class.

Flagging

Adherence to flags displayed by the VDKA Flagman during practice, qualifying and races is mandatory. Disregard of a displayed flag, anytime during the event, may result in disciplinary action by the VDKA Board.

Race Format

The race format is as follows:

- Practice follows the Points schedule
- Qualifying by Time Trials
- Times from qualifying will apply to both the Points and Pro classes with the exception of the "PRO Class of the day" which will have its own qualifying time.
 - Races will be 20 laps, Junior Stars 10 laps, unless the time factor causes them to be reduced.
- A three-spin rule is applied by the Race Director. Any kart causing 3 restarts during a race for accidents or spins will be sent to the pits.

The maximum number of karts in a class will be 30. When the number of entries per class exceeds 30, the top 20 qualifiers will be in the race. Qualifiers from 21 starting position back will run in second round qualifying to determine the remaining 10 spots.

DRAFTING DURING QUALIFYING IS PROHIBITED. THE FLAGMAN WILL DELETE LAPS WHERE DRAFTING OCCURRED. Competitors receiving the blue flag during qualifying are required to separate.

Time trials will determine the race starting order for each class. Clock officials will wait one minute at the end of each class for all competitors who have not qualified. Each competitor must qualify with his/her respective class/group. Competitors who fail to qualify with their assigned group and qualify with another group will forfeit their fastest lap of qualifying. Competitors who fail to qualify will start in the rear of the field. If a kart is missing when the last group of his/her class is ready to qualify, an

announcement will be made that the driver of the missing kart has one minute to join the last group. If he/she is then not present on the grid with the kart, qualifying will not be allowed. As a class finishes on the track, the next class will be given 2 minutes to be on the grid and the grid will be closed.

IT IS THE RESPONSIBILITY OF ALL DRIVERS TO ENSURE THEIR TRANSPONDER IS ON THEIR KART, MOUNTED CORRECTLY, BEFORE ENTERING THE GRID TO QUALIFY OR RACE. Transponders must be attached to the Steering Shaft where or above where the tie rods connect to the shaft on all karts.

No racing back to the caution flag. In the event of a late race cautions, if the leader takes the white flag and the yellow flag is displayed before the leader takes the checkered flag, we revert back to the last completed lap. If any kart takes the checkered and then the yellow is displayed, only the karts crossing before the yellow was displayed hold their position. Any karts not completing the final lap before the caution will revert back to the previous lap and karts involved in the caution will go to the end of the last completed lap.

Junior Stars & Junior Classes

Junior Stars Champ and Junior Stars Sprint are entry-level classes for racers ages five to eight years old. These classes will be run for points with a 10lap feature. The emphasis is on learning the rules and sportsmanship norms of racing. Karts and engines will be subject to pre-tech and post-race tech like any other class. Junior Stars racers are not required to run the mandatory open practice. A racer is not allowed to run a Junior Stars class if they are entered in a Junior Sportsman Champ or Sprint class.

A competitor may move up a class if reaching the required age during the year, but will forfeit points in the prior class and cannot move back to previous class. A competitor may not run at a different level in a sprint and a champ class (e.g., Jr Sportsman Sprint and Jr Champ)

Maximum time for a race event

VDKA is constantly working to manage the timing of our events. With 20+ classes on our schedule, it's important for us to manage the total time each class is on the track during a race. We have established a maximum time of 20 minutes per class to accomplish each race. The 20-minute time starts when the flagman shows the first green flag. If a red flag is shown, the 20-minute time will stop until the green flag is shown again. This will ensure that an incident on the track involving emergency response personnel will not impact the actual time limit of the race. After that, the flagman or race director will monitor the time taken for that race. When 20 minutes have passed, the flagman or race director will stop the race if another yellow or a red flag has to be displayed. After this final caution/race stoppage, the field is lined up;

the flagman indicates that this is the final restart, by holding up the white and checkered flag. The field moves out, comes around and takes the GREEN FLAG, comes around for the WHITE FLAG and then completes one more lap for the CHECKERED FLAG.....so basically two more laps are completed after the race has been stopped for a yellow or a red flag after 20 minutes have elapsed. The race will then be called a completed event and the scoring at this time will determine all finishing positions.

VDKA Trophy System

Awards will be given to 1st place only in Adult classes, Junior classes will receive awards as follows:

- 2-3 Karts, 1 Trophy.
- 4-5 Karts, 2 Trophies.
- 6-7 Karts, 3 Trophies.
- 8-9 Karts, 4 Trophies.
- 10 or more Karts, 5 Trophies.

Tech Procedures

If a competitor does not accept the VDKA Tech Official's findings, he or she must submit a written protest within 20 minutes of the call along with a \$100 Protest Fee. The protest and part is given to the VDKA Tech Advisory Committee who will examine the part/protest to make the final determination. **THEIR DECISION IS FINAL.** The responsibility of the Tech Advisory Committee is to decide if the part either met or failed, by the description of the Tech Manual, not to decide whether the Tech Manual is correct or not. (See page 8 for Tech Advisory Committee members).

If the part is found to be illegal, no money will be returned, the driver will be "DQ'd" from that event and the part will be confiscated by VDKA. If the protested part is found legal, the \$100 will be returned to the driver and his/her race finish restored. Protested funds not returned will be the property of VDKA. The Tech Advisory Committee will attempt to meet the night of the race and a decision will be made unless there are questions involving the part that require additional information to ensure the proper call is made.

The top five finishers in **all but seven classes** will be teched by the "Outside Tech Official", with the engine remaining on the kart.

Seven classes will be selected at each race for a more extensive tech. These classes will be managed to ensure all classes will be teched by this method, as close to the same number of times during the season as possible. Tech officials will decide what will be teched for all classes.

Protests will be limited to engine only after karts have left grid for the start of their feature.

Protest of another competitor's engine

If a competitor wishes to protest another competitor's engine, the protest fee is \$300 cash paid to VDKA and the steps below must be followed:

1. Tech Director Must be notified of protest at scale/impound area while both karts are in impound area and within the 20 minutes of the ending of the race.
 2. The protest must be in writing and done within 20 minutes of the race ending. (The race end is determined by computer scoring which contains the exact time the race ended)
 3. The protestor's kart/engine must remain in the tech area until the tech procedure for the engine being protested is complete.
 4. The protestor can only protest the competitor's engine finishing directly in front of him/her. (e.g., if the protestor finishes fourth, he/she can only protest the third place finisher, no other finisher in the race).
 5. If, after the engine teardown, the engine is found to be legal, the engine owner receives \$225 and the Tech person receives \$75.
 6. If the engine is found to be illegal, the protestor receives \$225 back from VDKA and the tech person receives \$75.
 7. The protestor engine will be teched first and, if found illegal, will be disqualified and the protested engine owner will receive \$225 and the tech person receives \$75. The protest is concluded if protestors' engine is not legal. The Tech team's decision is final.
- Refusing an engine protest will result in a unsportsmanlike disqualification (cannot be dropped) from the day's events and a \$150 fine that must be paid to VDKA officials before the competitor will be allowed to register for another event.

VDKA Bad Weather System

If bad weather causes qualifying to be delayed or a race to be discontinued, qualifying/race schedules may change as follows:

- At 4:00 PM, if qualifying has not started, pills will be drawn at the first race or points will be used at all other races to determine qualifying positions, if the weather allows.
- At 4:00 PM, if qualifying is underway, it will stop. If a class is qualifying at 4:00, that class will be continued until completion. Pills or points will determine race starting positions for all classes not qualified.
- All classes qualified before 4:00 will use their qualifying times as starting positions, even if bad weather causes qualifying in the remaining classes to be cancelled.
- At 3:00 PM, if bad weather is present and the forecast is for the bad weather to continue, the race may be called either a rainout with a makeup date or, if a minimum of 8 classes has completed qualifying, the race will be called a completed event.

- If less than 8 classes have qualified and the bad weather is not forecasted to leave, the race will be rescheduled to the scheduled rain date.
- If the rain date has already been used and the bad weather is still present and forecasted to continue, any time after 5:00 PM, the race can be called a completed event and all registered competitors will receive first place points. There will be no second rain date for a race cancelled due to bad weather.

Track Promoters

Capital City Speedway www.capitalcityspeedway.info
Lisa Beazley
(804) 387-7318 for parking

Margarettsville Speedway
Paul Fischer
(804) 519-4216

Albemarle Speedway www.albemarlekartclub.com
Jody Weaver President (757) 537-3717
Neil Overmire Parking (757) 679-9876

Tech Advisory Committee

Paul Fischer
Joey Powers
Justin Collier

Track Management Committee

Bailey Moore
Cameron Wood
Michael Mahanes

Race Officials

Bailey Moore – Flagman
Ronnie Sipe – Race Director
Eddie Moore – Grid Steward

Tech Directors

Buzz Moore
(804) 564-7840

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2025 Schedule and Featured Classes

- April 5 - Margarettsville Speedway
- May 3 - Albemarle Speedway
- May 31 - Capital City Speedway (Brockwell Memorial)
- July 19 - Margarettsville Speedway
- Aug 2 - Albemarle Speedway
- Sept 13 - Capital City Speedway
- Rain Dates – July 26, Oct 4

VDKA Office

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(804) 746-2140

Email: jlquth@aol.com

Website: www.VaKarting.com

	AGE		WEIGHT	
JUICE BOX	3-5	Radio Flyer Kart		
JR STARS- SPRINT	5-8	Clone .375 Red plate Big Pipe Mandatory 15-64 gear (No skip tooth gears) 34.25" max tire circum	245	Points
JR. STARS - CHAMP	5-8	Clone .375 Red plate Big Pipe Mandatory 15-64 gear (No skip tooth gears) 34.25" max tire circum	275	Points
JR. SPORTSMAN -SPRINT	8-12	Clone .400 Black Plate, Big Pipe	280	Points & Pro
JR SPORTSMAN - CHAMP	8-12	Clone .400 Black Plate, Big Pipe	315	Points & Pro
JR. RESTRICTED - SPRINT	11-15	Clone .550 Blue Plate, Big Pipe	320	Points & Pro
JR. CHAMP	11-15	Unrestricted Clone, Big Pipe	360	Points & Pro
HOBBY SPRINT	15 + up	See Ducar/Hobby Rules Section for Claim Rules open dry/clutch	375	Points & Pro
CHAMP	15 + up		425	Points & Pro
CLONE - MEDIUM	15 + up	Big pipe - Open Dry Clutch	350	Points
CLONE - HEAVY	15 + up	Big pipe - Open Dry Clutch	375	Points & Pro
CLONE - EXTRA HEAVY	15 + up	Big pipe - Open Dry Clutch Driver must weigh 200 lbs.	425	Points & Pro
SR. CHAMP - CLONE	15 + up	Big pipe - Open Dry Clutch	425	Points & Pro
LIMITED	15 + up	Big pipe - Open Dry Clutch Engine: Animal or Clone	375	Points



WORLD KARTING ASSOCIATION®

2025 Official Dirt Rule Book

Effective Jan 5th, 2025

Stock Clone Engine Rules:

Important Note: All parts must be Box Stock factory production parts unless otherwise specified in this rule's manual. No machining or alteration of parts is allowed unless specifically mentioned in this manual. Tumbling of engine parts is strictly prohibited. All parts presented in tech may be compared to a known stock part.

Approved Engines: Lifan, Blue Max, Ducar, Speed Karts, BSP, Moree, Tillotson (196 cc ONLY.)

Attention: Just because it says non tech does not mean it can be modified. It is still compared to a known stock part.

1: Fuel: gasoline only (ethanol 10% only) or (87 Octane only) Subject to comparison test of sample standard set by track.

2: Clutches: Any shoe or disc clutches.

Jr's rookie red plate 16/64 gear rule only, right rear tires is 34 1/2 max o.d.

3: Fuel Systems:

1. No Pressurized fuel delivery and fuel injection systems are prohibited.

2. Fuel lines must be safety-wrapped at all connection points. If a fuel filter is used, it must be installed before the fuel pump.

3. Fuel tanks must be securely mounted to the primary structure, frame, or floor pan.

4. Fuel lines should only be as long as necessary to deliver fuel to the carburetor.

Excessively long fuel lines are not permitted.

3A: Fuel filter: Must be mounted between the fuel pump and tank only.

3B: Fuel Pump Requirements:

Fuel pump must be pulsed from either the crank case or the valve cover. You may install a flat metal plate in the original tank location for the purpose of mounting the throttle linkage and fuel pump.

4: Chain guard/Heat Shield:

Must be present and must be securely fastened to the engine. Must shield driver from the header and the chain.

5: Air filter:

Air filter cannot be configured as a ram air induction. Inspect inside air filter for an obstruction of air to pass through filter. A filter must be a round body with a maximum overall length (excluding flange) of 8 1/4" and a maximum diameter of 6 1/4". Air may only enter from the exterior surface of the sides of the filter body. The end of filter must be flat and there must be no entrance air from the end of the filter. Foam or nylon pre-filters are allowed. Any additional holes, vents, ports, etc. in the fuel system, carburetor or any other means of air introduced into air flow is strictly prohibited. Walker Filters allowed but the flat part of the filter must be pointed down to the body or towards the rear tire.

6: Carburetor:

Huayi, RUIXING or Tillotson PK1C model carbs only. Carb to intake sealer is gasket only no other sealer is allowed. Choke must be as supplied from factory but may be fixed to stay in open position. (Choke area must remain as cast). Carb bore .615 no-go. Bore maybe machined to specs, Minimum bore size is .608, no polishing permitted, and all transitions must remain stock in and out of the bore. No grooving of the bore. Rear carb bore .751 no-go. Carb bore at rear of carb .750 maximum depth (This measurement is taken from the flat surface on the rear of the carb down to the circular ridge at Bore's edge). No use of Loctite or other materials on high-speed jets or damaged threads permitted to lock the jet in a non-stock location. Main jet must seat firmly on bottom of the E-Tube. The carb body is subject to tech). Stock emulsion tube must be used. The .066 no-go can't enter in either end of the e-tube. Side holes of the E-Tube is 2 or 4 holes in the bottom section and is an .036 no-go. The E tube must have 20 holes minimum in the middle section and is an .036 no-go. Minimum E-Tube length is 1.092 and must be straight. The minimum protrusion of the E-tube into the bore must be checked by a .488 and .478 no-go. Minimum outside diameter of the E-Tube at any point is .154. Throttle shaft is .115 minimum. Stop arm of the throttle shaft may be filed to adjust for butterfly position. Butterfly is .037 minimum thickness, and it must have factory taper on the butterfly. Butterfly screw has a minimum length of .305. The screw must remain stock with the washer. If the screw has a factory flare, it can be filed on the sides for the removal of burrs from screw to perform tech procedure (this will prevent

damage to the throttle shaft). Aftermarket air filter adapter allowed-max length of 1.375.

6A: No tech on jet sizes but is still compared to known stock part.

7: Phenolic spacer:

Must be flat across the entire mating surface, with a min thickness of .265 (not including gasket). Gasket surfaces must remain parallel and no angle cutting allowed. Center inlet hole is non-tech. No rifling, grooving, or dimpling is allowed. The mounting holes size is .300" no-go and checked with a .300 gauge. Phenolic spacer/and gaskets are subject to spray tests to check for leaks or the introduction of air into the engine.

8: Restrictor plates:

Must have a gasket on each side of plate and are subject to a spray test for possible air leaks. No modification is allowed to the restrictor plates. Red .375, Green .425, Purple .500, Blue .550

8A: Update - Effective March 1st After thorough review of track variations and the ease of adjusting restrictor plates in the Junior Divisions, WKA has announced updates to the available restrictor plate options. Beginning March 1st, for Junior 1, the Black .400 and the Junior 2 Yellow .475 plates will be offered as promoter's options, with WKA officially approving all five plates for use under its sanctioning. Promoters and tracks are encouraged to prioritize safety when selecting the appropriate restrictor plate for their events, ensuring the best choice for all participants. Plate Options: Rookie/Red - Future Stars: ** Red .375 (Junior 1 ** Green .425 Black .400) (Junior 2: ** Purple .500 Yellow .475) Junior 3: ** Blue .550

9: Camshaft:

Must be stock camshaft cores only. EZ-spin assembly must remain as stock and functional.

9A: Cam lobe base circle is .865 $\pm .005$ /.010. Duration checks for Intake and Exhaust lobes are taken off the pushrod. Intake duration is 219 at .050 lift and 86 at .200 lift. Exhaust duration is 222 at .050 lift and 97 at .200 lift. There is a +2 for wear and gauge variances. Intake lift at the cam is a Max. 225 and a Min of .215 lift taken off the pushrod. Max Intake lift at the valve is .238 to be taken at valve retainer as raced. Exhaust lift at the cam is a max of .232 and a Min of .222 lift taken off the pushrod. Max Exhaust Lift at the valve is .242 to be taken at valve retainer as raced.

10: Cylinder Head:

OEM head JT or Tillotson head are the only ones allowed. Any other heads manufactured must be sent in for approval. All heads must meet all the specs listed in these rules. Valve

seats must have three angles only: (30°, 45°, 60°). Intake seat maximum ID is .899 no-go, Exhaust seat maximum ID is .863 no-go. There is a 1mm minimum margin on top of the valve seats (must be visible). Top face of the valves may not be below the floor of the combustion chamber. It is checked between both valves on the roof of the head. (do not sink the valves). Valve guides must be in the stock position with a min length of 1.055. There is a multi-tool used to check the length, position and depth in the head. Stock steel guides only. The spring pocket tool checks the spring pocket flatness, The use of aftermarket flanged bolts of similar size 8mm x 1.25mm bolts are allowed for replacement. Head gasket or gaskets maybe aftermarket and be stock configuration. Gasket thickness is a tech item with a .009 minimum thickness. Depth check between the valves, (12 o clock to 6 o clock) front to back and (3 o clock to 9 o clock) side to side may not vary by more than .005. This is measured from the head gasket surface to the center of the valves. The only bolts you can heli-coil is the exhaust bolts which are 8mm x 1.25mm. Studs or Allen bolts are allowed.

10A: Steel, graphite, or aluminum gaskets are allowed, and sealer is permitted.

10B: Porting Allowed

The current no-go tools are used to check the intake port runner entrance. (gasket surface) Intake .962 no-go vertical oval to flat and .950 no-go horizontal flat to flat. (gasket surface) Exhaust .974 vertical oval to flat and .967 horizontal Flat to Flat. Both port entrance and exit must maintain the original "d" shape. No addition of material in ports, no rifling, dimpling. You can't touch the guide or seat when porting the head. Touching the guides or seat when porting will be out of spec. Stock steel guides only.

11: CC Check:

Head depth between valves + head gasket thickness + piston depth in the hole across flat portion of piston = minimum of .290

12: Valve train:

Stock four bolt valve cover only with cork or rubber gasket, sealer is allowed. Factory stock rocker arms must be a 1:1 ratio. Square tip rockers are allowed. Minimum over-all length of the rocker arm is 2.145. The minimum thickness of the upper valve stem end of rocker arm is .030. Removal of material from the contact area of rocker arm to valve stem only is to adjust for proper running lift. Stock steel or stainless nitrate coated valves only. Must be a 45-degree angle on both valves. Both valves must have a minimum weight of 21 grams each. A 1mm margin on the top of the valves. No knife edging of the intake or exhaust valves is permitted. Intake valve Max OD is .982 + or - .005 and the exhaust valve Max OD .945 + or - .005. No other modifications are allowed. Any single valve spring measuring 10.8 lbs. at .850 and 18 lbs at 650. The installed height for the valve springs is a .815 must go gauge. It is a must go gauge that goes between the retainer, seal and any shims that are in place on the

intake and exhaust valve if used. Shims can be used to achieve the .815 installed height. Maximum thickness of shims used is .075. Using a combination of valve seal and shims is allowed. The Rubber seal may be removed and used as shim only). You may use the valve stem seal or not. It is a tech item if used as a shim. The rubber inside it is a non-tech item.

12A: Spring check Weights:

Procedure check is as follows: Remove the valve retainer. Remove the spring it must be checked as ran. No flipping of the spring is allowed. Place the .850 spacer over the post, place the spring over the post. Slide the 10.8 lb. weight over the post gently lower it onto the spring and press lightly. Release the weight and take a flashlight and look for light between the weight and the spacer. If you see a light 360* around the spacer it is deemed out of spec. The weight must touch the spacer at any point in the 360* area. Once both springs have been checked, repeat the same procedure using the .650 spacer and add the 7.2 lb. weight to achieve the 18 lb. check. If at any point the spring lifts either weight off of the spacer it will be deemed out of spec. Sanding the ends of the valve springs is allowed to help meet the spring checks.

12B: Lash cap:

Use on the exhaust valve only the minimum height is .150 and the minimum diameter is .330. No other modifications are allowed.

13: Push Rods:

The push rod is 5.285 maximum and 5.230 minimum. Push Rod must be a 3-piece design, a hollow or solid tube with two solid ball ends. Weight check for push rods is 9 grams minimum.

14: Valve cover:

May be tapped with a 1/4" NPT pipe tap, to use a breather fitting, No oversize drilling allowed. The use of Aftermarket flange bolts of similar head size, diameter, length and thread pitch (6mm x 1.0 mm) can only be used as a replacement. Flapper vent in valve cover must remain stock and functional.

15: Engine Block:

Must remain stock. Beveling at top of cylinder for gasket matching is strictly prohibited. Maximum bore options are listed below. Max .010 over bore. No piston pop out allowed. Matting surface finish for the block and cylinder head may be machined for the purpose of gasket failure and to meet cc check. You may use 2 side cover gaskets. The oil drain hole between the lifters is checked with a .251 no-go. Any type of side cover bolts, studs or lock washers are permitted. Must be original size. Sealer permitted. Solid dowel pins are allowed for replacement of the side cover to block. The measurement of the dowel pin is .315 or 8mm maximum diameter. Dowel pin must be in the factory position. Governor may be

removed, and hole plugged. Welding to the block shall be for rod damage only. No welding on the fins of the block or the flywheel side of the block. No other modifications are permitted.

16: Clone lifters only:

Length 1.350"-1.390". Lifter Head diameter is a .915 min. & .935" max. The minimum weight is 18 grams each.

17: Connecting Rod:

Stock Rod only, including stock rod bolts.

Dimensions: The Distance from the top of the journal to the bottom of the wrist pin hole must be a maximum of 2.375" and a minimum of 2.345".

Honing: Honing of the journal end and wristpin hole is allowed, but these surfaces must remain flat.

Oil Hole Size: Non-Technical specification for cast rods only

Minimum Weight of Rod Assembly: 133 grams

ARC Billet Rods: Permitted with No Modifications.

Part Numbers:

#6270 - Standard

#6269 - 0.010" Over

#6734- 0.010" Under

Minimum Weight with Bearings: 149 grams

18: Stock piston & rings:

Piston must be unaltered box stock. Overall piston length is 1.935 maximum to 1.920 minimum. From the top of the wrist pin to the top of the piston is a .580 maximum. The arrow on top of the piston must be pointed down toward the lifters. The top ring and middle ring are .115 maximum widths. The two top rings are .060 max thicknesses. The 1 mm rings are not allowed. Filing of ring end gaps is permitted. Max end gap is .040 on both of the top rings. Lapping of rings is permitted. File fit rings are allowed. Piston ring must be in one piece, unbroken when presented to tech personal. If either ring is broken while being taken off, the tech process is stopped and deemed out of spec. The 2 top piston rings must be self-supporting in cylinder when installed. Oil ring assembly and piston must be self-supporting in cylinder. This must be checked as ran in competition. Minimum weight of piston is 145 grams with the oil scrape rings installed. Honing of wrist pin and rod journals is permitted. No chamfering, rounding of sharp corners, or breaking of edges is permitted. Cylinder surface must remain flat and retain stock edges. The skirt on the piston must remain as produced from factory. The wrist pin length is non-tech currently.

Rod cap and bolts are required during this check.

19: Stock clone crankshaft only:

OEM factory crankshaft has no modifications. Stock stroke length is 2.126 +.007 - .005. The maximum is 2.133. Machining, polishing, addition of material or other alteration of the crankshaft is strictly prohibited. Crankshaft journal diameter is 1.180 maximum to 1.168 minimum.

Crankshaft weight is 1680 grams minimum. This is a reference only at this time.

19A: Bearings:

Crankshaft Bearings should be of metallic steel construction and be a stock ball design of nine balls only. Bearings may be slip fitted in the block and side cover. No ceramic bearings are permitted.

20: Spark Plug:

14mm X .75 reach only. Aftermarket plugs are allowed. Sealing ring non-tech.

20A: Spark plug boot:

Must be a Phenolic insulator or plastic. Resistor or non-resistor is allowed.

21: Ignition system:

Stock Clone system only and must be unaltered. Kill switch and low oil sensor may be disabled or removed.

22: Flywheel:

BSFW-1 and DJ-168F-16200-A are the only steel billet flywheels that are allowed, (5lbs 4oz minimum including plastic fins). The ARC 6619, ARC 6618, ARC-6689, NF- S1 & RSP-13-077, F-S1, PVL 211-900, SK6841 are the only approved flywheels in the Clone class. Non-fin flywheels must utilize the stock plastic fins. No alterations of any type allowed. Stock cast flywheel are no longer allowed. Timing key is non-tech. All new flywheels must be submitted for approval.

23: Header Pipe and Muffler:

Stock Clone: Junior's and adults when big pipe is allowed.

Header Pipe length is 16 1/2 minimum to 20 1/2 maximum. (To be measured on the inside of the pipe with a 1/4-inch steel tape). Sealer maybe used in place of a gasket. To tech the pipe: Place the engine on a flat surface. Measure from the flat surface of the block to the bottom edge of the silencer end. This cannot exceed 9 inches. Header flange maximum thickness is .510". Allen bolts or studs (8mm x 1.25mm) are allowed. Maximum height from the top of the header flange to the top of the pipe curve is 10 inches. It must be wired or double nutted. Header gasket must be stock configuration. Any leakage of exhaust from the cylinder head to the end of the silencer will be deemed out of spec. Hose clamps are not allowed to attach the silencer to the header. All headers must be wrapped to prevent injury.

No part of the muffler can be wrapped. ALL B91 silencers must be safety wired to the header brace. The B91 rear baffle holes are .1285 no-go. All 4 baffles must be present.

23A: Effective March 1st Big Pipe for all Junior Classes

24: Blower Housing and Pull starter: This must be present and remain stock. You may rotate the pull starter for easier cranking.

25: Engine oil catch can is mandatory

26: Low oil pressure sensor may be removed.

23: Governor is non-tech and may be removed.

24: Coatings: Any performance coating of any type is strictly prohibited. Only header pipes are allowed to be coated.



DUCAR 212 RULE PACKAGE

1. Engine must be factory rated Ducar 212cc and run in box stock configuration. All parts must be stock OEM factory production parts unless otherwise specified in these rules. No alteration, cutting, grinding or machining of any parts. No sandblasting, tumbling, or polishing of any kind. This is strictly prohibited. All parts are subject to be checked by a known stock part if in question. No reading between the lines. If it is not specifically mentioned in these rules, then it **MUST** remain stock.
2. Gas: 87 octane pump gas only (Track to supply test sample).
3. Block: Stock OEM Ducar 212 block with no machining allowed with the exception of cylinder clearance. Maximum bore size 2.758" 0 piston pop up allowed.
4. Cylinder Head: No machining permitted on gasket surface and absolutely no porting of any kind. Maximum intake valve head diameter 1.062" +- .005" Maximum exhaust valve size .946" +- .005" Minimum depth from gasket mating surface to combustion chamber between valves it .485" +- .010" (for reference only). The seats must be stock and can have the 3 angles of 30/45/60 as from the factory. However, you may not attempt to excessively sink the valves in an effort to increase airflow. Stock OEM graphite style head gasket only. Minimum .042" thickness. No sealer.
5. Piston & Rings: Stock OEM dished piston with valve relief on exhaust side only. Maximum size 2.7565" measured at the bottom of the skirt. Stock OEM rings. No altering of the rings allowed, especially the oil ring.

6. Rod: Stock OEM cast connecting rod only. Rod may be honed for oil clearance only. No rounded or broken edges. No billet rods allowed.
7. Crankshaft: Stock unaltered OEM crankshaft. Governor gear must be installed in stock location. Max stroke 2.163 +/- .010"
8. Flywheel: Engine must run PVL aluminum die cast flywheel only. No cast iron OEM flywheels. Must utilize stock unaltered timing key. Stock OEM unaltered ignition coil.
9. Camshaft: Must run stock OEM camshaft. Base circle size .865" +.010 - .005" Maximum Intake lift .225 Maximum In duration at .050" = 210 Maximum In duration @ .200" = 75 Maximum Ex lift .232" Maximum Ex duration @ .050" = 212 Maximum Ex duration @ .200" = 84 All checks to be taken at the push rod.
10. Valve Train: Maximum valve spring wire diameter .079" Stock OEM springs must be used. (15lb @ .850" reference only) Valve seal allowed on intake side only. No shims allowed. Stock OEM push rods must be used with a maximum length of 5.825" +.010" Stock unaltered lifters and spring retainers to be used. No lightweight components.
11. Carburetor: Stock OEM Ruixing carb only. Carb must be completely stock. No machining of any kind. Maximum venturi .615" and minimum venturi size .608" Carb bore maximum .750" Stock E-tube with a maximum of 20 holes. 1.092" minimum length and minimum outside diameter of .154" .066" maximum hole through the E-tube. Butterfly minimum .037" Minimum throttle shaft .115" Minimum screw length .305" Phenolic spacer must remain stock. Maximum pilot jet size .018" (.019" no-go) and must use both o-rings. Maximum main jet size .029" (.030" no-go)
12. Air Box: Stock OEM air box must be used and in stock unaltered form only. Air must enter through the air filter only. Any open unused holes must be plugged. Stock OEM air filter with foam sock must be used.
13. Muffler: Stock OEM muffler in unaltered form must be used. If any doubts about the integrity of the muffler should arise, simply cut the muffler in two, to determine legality by comparing to known stock muffler.
14. Governor: (As of MARCH 1st, 2024 competitors may utilize the DUCAR OEM rev limiting ignition coil (Part # 212-1260R) as an alternate to the stock OEM governor. You may remove the governor assembly completely and plug holes or leave the governor assembly in stock form. However, if you remove the governor, you MUST use the rev limiting coil. Effective 01/01/2025: Engine is NO LONGER required to be free revved in post-race tech. (If a competitor is suspected of exceeding a reasonable rpm (5500rpm) during the race, the tech official may look at the maximum rpm the competitor raced and ensure the rpm did not exceed 5500 rpm. If it does exceed 5500 rpm during the race, it would be considered a DQ.)
15. Gas Tank: Stock tank should be removed, and an auxiliary tank mounted in the floor pan should be used. A top plate and fuel pump are allowed with the pump be pulsed off the valve cover only. (Track Option) Utilize stock OEM tank with the vent tube unplugged and up to 4 - 1/8" holes in the fuel cap for venting.
16. Low oil shutoff can be disconnected and/or completely removed. No taping or decals added to the recoil in an attempt to block off air.
17. Chain guard, throttle linkage, top plate and fuel pump are the only aftermarket parts allowed on the engine.
18. There is no longer a claimer rule. The engine in question must be protested by a competitor or subject to tech by the track if the promoter/tech deems necessary. The protest and acceptance fees are to be determined by the track.
19. If there is any doubt as to the legality of any part on a Ducar 212 engine, the competitor has the right to file a protest with the track/official. The part in question can then be shipped to DynoCams for review. Please include contact information for the promoter and we will contact the promoter with our findings on the legality of the part in question in a timely manner.

2025 208cc Limited Modified Kart Class -

Limited Modified Flathead and Limited Modified Animal legal in this class. Must conform to WKA engine rules.

A. Crankcase Assembly

A1. Block

- Any Honda Clone (Ducar, Predator, Tillotson, Wildcat, BSP,) 70mm Block.
- 2.785 Cylinder Bore No-Go
- Billet Blocks are Prohibited
- Welding or epoxy repair is permitted on the block and side cover. Repair may not be a functional modification (performance enhancing, e.g., No reinforcements to the jug or fins) of the OEM part.
- Decking of the block is permitted. No pop-up of the piston is allowed.
- No Deck Extensions
- Deburring of excessive flash is allowed but not to alter OEM specification or appearance.
- Block or Side Cover may be drilled and tapped for ventilation

A2. Crankcase Side Cover

- Billet Side Covers and Pressure Control Valves are permitted

A3. Fasteners

- Non-tech unless otherwise stated, but must retain their original factory size & location. Heli-coils, studs, etc., allowed for repair purposes. Solid dowel pins are allowed. Washers allowed under head and crankcase bolts or nuts.

A4. Gaskets & Sealer

- Gaskets must be in OEM configuration and are non-tech, and sealer may be applied unless otherwise specified.
- Head Gasket Non-Tech

A5. Bearings

- Crankshaft bearings must be the same dimensions as the OEM bearings. This includes inner and outer races as well as the balls and rollers. Metal or Ceramic bearings are permitted.

A6. Blower Housing Assembly

- Blower Housing must be present with Flywheel Cover
- Hand-held electric Starters are permitted
- 3rd Bearing Supports are permitted

B. Rotating Assembly

B1. Coatings & Polishing

- Coating, tumbling, and/or polishing of internal parts and head is prohibited unless otherwise stated
- Teflon/Coated Piston skirts are permitted. No Coating is allowed on the Piston Crown or Combustion Chamber

B2. Piston

- 70mm(2.756")-70.612mm(2.780) Max Diameter
- Any Dish or Flat Top Piston (No Domes)
- No Piston Pop-Up

B3. Rod

- Non-Tech, Aluminum Billet rods are permitted. Steel & Titanium Rods are Prohibited

B4. Crankshaft

- Standard OEM item with a stock stroke length of 54mm or 2.126" (+/- .007").

B5. Ignition Coil

- Ignition coil must be OEM for all classes. (NO CDI, Digitally control Ignitions)
- Timing is non-tech.

B6. Flywheel

- Approved Flywheels:
 - ARC-6619 flywheel TM
 - ARC-6618 flywheel TM
 - ARC-6689 flywheel TM
 - Dyno PVL 211-900 flywheel TM
 - EC SK100 Rev WheelTM
 - EC SK200 Rev WheelTM
 - King Billet Aluminum Slipstream Flywheel TM
- The flywheel key may be altered and is non-tech; the key is not required to be installed.
- Flywheels must have a minimum weight of 3.3 pounds.
- Modification or removal of fins is prohibited.

C. Cylinder Head

C1. Approved Cylinder Heads

Any factory "JT" clone cast head with 22cc Open Chamber Non-Hemi cast heads will be allowed. Any other heads need to be approved before competition.

- Heads that are Prohibited:
 - Hemi (Ducar, Predator, Wildcat, etc)
 - Small Chamber (18cc, 14cc, 12cc)
 - Honda GX160/200 T1
 - Wildcat WC946
 - EC Evolution
 - Gage/Stout CNC Cast Heads
 - DTV Shredder Round Intake Port

C2. Porting

- Intake Inlet and Exhaust Outlet must meet No-Go specifications – I.E. No port matching to intakes manifolds or exhaust flanges
- Intake Port Inlet Vertical Measurement .962" No-Go"

- Intake Port Inlet Horizontal Measurements .950" No-Go
- Exhaust Port Outlet Vertical Measurement .974" No-Go"
- Exhaust Port Outlet Horizontal Measurements .967" No-Go
- Porting, and grinding, to the ports are permitted. Blending to the seat is permitted but must not exceed No-Go Gauges. Valve Guide must be untouched.

C3. Minimum Combustion Chamber Volume

- Measure the total length between the valve seats in the combustion chamber and the top of the piston. Chamber Depth + Head Gasket Thickness + Piston Depth = .280 Minimum

This will be done after the event and when the engine has cooled to a reasonable temperature. A head gasket is required, but the thickness is non-tech and can be copper, steel, aluminum or composite(fire ring). Multiple head gaskets are allowed.

Minimum Depth .280"

- No Grinding or polishing of the combustion chamber.
- No angle milling of the head. The measurement taken from the gasket surface: depth check to combustion chamber floor cannot vary more than .005" in any direction.

C4. Valve Seats

- Valve Seat Angles - Non-Tech
- Intake Seat ID .899" No-Go
- Exhaust Seat ID .862" No-Go

C5. Valve Guide

- Valve guide must be stock with no modifications and in stock position with the valve guide retaining clip touching the head
- Valve Guide minimum length: 1.055"
- Stock Iron Guides Only
- Bronze and Non-Stock Materials are prohibited

C6. Valve Covers & Breathers

- Valve Spacer is permitted
- Billet Valve Covers are Permitted
- Valve Cover/Crankcase Vents and Breather must have lines to a catch can.

D. Camshaft & Valve Train

D1. Valves

- 5.5mm Carbon(Stock) or Stainless Steel Valves Only (No Titanium, Inconel, etc.)
- Intake Valve Head OD 0.985" +/- .005
- Exhaust Valve Head OD 0.945" +/- .005
- Valve Length and Weight Non-Tech

D2. Rocker Arms

- 1:1 ratio rocker arms only - Stock Stamped, Gen1 & Gen2 Champion
- Rocker arms must be steel and are subject to magnetic tests.

- Rocker arms are allowed to be ground on valve stem location only, or on bottom of rocker arm to allow running lift to be compliant. Grinding on the sides of the rocker arm is prohibited. There are no minimum thickness checks.

D3. Valve Springs

- Non-Tech

D4. Valve Spring Retainers

- Billet Aluminum & Titanium are Permitted
- Lash Caps - Non-Tech
- Valve Seals - Non-Tech

D5. Push Rods

- 3/16 or 1/4 Chromoly Push Rods are Permitted

D6. Lifters

- Billet Lifters Permitted
- Length: 1.350"-1.390"
- Outside Diameter: .935" maximum
- Minimum Weight: 18 grams

D7. Camshaft

- Billet Cam Core is Permitted

Duration taken from pushrod: Intake and Exhaust duration of 248° degrees at .050 lift and 153° at .200" lift. Camshaft tolerances: +2 degrees with no minimum duration check

- Intake lift at pushrod is .310" Max. Intake lift at retainer .325 Max
- Exhaust lift at pushrod is .310" Max. Exhaust lift at retainer .325 Max.
- Running Lift will be checked as raced.

E. Carburetor & Fuel

E1. Carburetor

- Diaphragm with butterfly Carburetors ONLY (Tillotson HL & EC Billet Intimidator XR-25 Carburetors Only)
- Max Venturi .900" - .901" NO-GO
- Min Venturi .860 - .860" GO-Gauge
- Max Throttle Bore 1.00" - 1.002 NO-GO

E2. Fuel

- 100% Pure Methanol (No Additives)
- Floor-mounted fuel tanks are required. The OEM tank must be removed from the engine.
- Any pulse-type fuel pump permitted and can be pulsed from the intake, crankcase, side cover, or valve cover.

F. Exhaust System

F1. Exhaust System

The maximum length is 24 inches, measured through the inside of the pipe with a .250-wide tape measure. Remove the silencer and pull the tape measure tight. If any portion of the pipe's length is below 24 inches, it is legal.

- Complete Pipe & Silencer cannot extend past the rear bumper and must be totally contained inside the kart frame.
- Loop or Loop type pipes are prohibited.
- Gasket and/or silicone are allowed to seal the header pipe to the head.
- Pipe must be safety wired.
- Header Flange: No Maximum Thickness.

F2. Header

- Height must be 10 inches maximum from the top of the header flange.
- Header pipe wrap required from the header flange to the silencer. It must be overlapping, and no part of the header is showing.

The header must be braced. At the end of the race, the header and muffler must both be secure (tight)—this is grounds for disqualification.

- Ceramic coatings permitted on pipe only. Coatings on any other part of the exhaust are prohibited.
- Studs on exhaust may be replaced with regular threaded bolts of equal diameter and must be safety-wired.

F3. Muffler

- Track Option – Tracks are allowed to run without mufflers (Check with your track officials)
- Silencer RLV B-91 series model 4106 is mandatory with all baffle plates on the inside and must be supplied by the manufacturer. Coating is prohibited.
- A clamped brace must support the silencer—no welding of brace to silencer or pipe. The silencer must be able to be removed for inspection.
- Silencers cannot be parallel to the ground. It must point towards the rear bumper or ground. The lowest part of the silencer can be a maximum of 9.0" above the mounting surface of the block.