



2018 By-Laws

Rules and Regulations



2018

JANUARY 1, 2018

The mission of Lubbock Karting Association, hereafter referred to as LKA, is to promote the sport of karting for fun, enjoyment, and sportsmanship for the entire family.

The purpose of this book is to familiarize members of LKA and their guests with the rules and regulations governing events, participation, and facility usage. This book serves as a guide, a framework by which the LKA governs all activities associated with LKA and is in NO way intended to be a foolproof set of rules. LKA has chosen to conform to the rules set forth by NKA (National Karting Alliance), WKA (World Karting Association), AKRA (American Kart Racing Association), and Briggs and Stratton. The scope of this book is to define “local option” classes and rules, and facility rules and guidelines. The SPIRIT AND INTENT of these rules will be the standard by which karting will be guided. In instances where a situation or condition is not specifically addressed in this book, the current or most recent WKA rules will apply. LKA reserves the right to initiate action to correct a hazardous condition or a condition that LKA deems not to be in compliance with the SPIRIT AND INTENT of these rules. Any deviation from LKA policy must be approved by LKA officials in advance. While the LKA rulebook is published annually, changes, additions, or deletions to these rules are sometimes necessary. LKA reserves the right to modify, define, delete, and/or clarify any rules or regulations. In the event that rules must be modified, updates will be published via the LKA website, and any changes or modifications will be included in the next scheduled publication of this rule book. Members are required to possess a current copy of the LKA rulebook, and during any scheduled activity on LKA property, LKA officials reserve the right to verify possession of the most current rule book.

Karting is a sport that requires cooperation from everyone involved. LKA has worked hard to ensure a fun, safe, and fair environment in which to participate. Without you, karting does not exist. Without rules, chaos ensues. LKA is constantly working to improve the karting experience for all who choose to participate. As such, LKA encourages input from all of its members so that karting with LKA continues to be the experience our members have come to expect.

LKA operates Sleepy Hollow, a paved sprint course; and County Line Speedway, a dirt oval. Since both tracks are located on the same property, all LKA rules of competition apply equally to both venues. Rules specific to either venue are included in their respective section.

Good luck during the 2018 racing seasons. Be fast... be safe.

Sincerely,

Lynn Cox
2018 LKA President

INDEX

Lubbock Karting Association By-Laws	page 4
I. Facilities	page 6
II. Drivers	page 7
III. Karts	page 8
IV. Pit Rules	page 11
V. Race Days	page 12
VI. Race Heats	page 13
VII. Driving Regulations	page 18
VIII. Officials	page 20
IX. Flags	page 21
X. Protests	page 22
XI. Required Protective Equipment	page 23
XII. Awards	page 24
XIII. Classes	page 25
XIV. Annual Benefit Race	page 29
Briggs and Stratton Flathead Rules Addendum	page 30
Briggs and Stratton LO 206 Rules Addendum	page 33
Clone "Box Stock" Motor Rules Addendum	page 40

Karting Association of Lubbock

D/B/A

Lubbock Karting Association

By-Laws

Article I- The Organization

- Sec. 1 This organization shall be known as KARTING ASSOCIATION OF LUBBOCK D/B/A LUBBOCK KARTING ASSOCIATION.
- Sec. 2 This organization shall be chartered by the State of Texas as a “NON PROFIT ORGANIZATION”, and shall be governed by the laws of the State of Texas

ARTICLE II-OBJECTICE

- Sec. 1 The objective to the organization shall be to promote the sport of “KARTING” for fun, enjoyment, and sportsmanship for the entire family.

ARTICLE III-OFFICERS

- Sec. 1 The President, Vice President, Secretary- Treasurer, Race director, and Pit Steward shall be elected annually at the first regular stated meeting in November. The officers shall take office in the 1st stated meeting in the January following the election.
- Sec. 2 All officers shall serve for a period of one year, or until successors have been duly elected and qualified
- Sec. 3 The President, Vice-President, Secretary-Treasurer, Race Director, and Pit Steward and the past

President shall constitute a BOARD OF DIRECTORS. In the event of duplication of the board members, the BOARD OF DIRECTORS shall elect members to the Board to serve for the ensuing year.

ARTICLE VI-MEMBERSHIP & DUES

Sec. 1 Any person of good character who is interested in the sport of “KARTING” shall be eligible for

Membership in the KARTING ASSOCIATION OF LUBBOCK D/B/A LUBBOCK KARTING ASSOCIATION. Membership fees are \$180.00 to be paid by March 31st each year. Dues paid after April 1st will be \$20.00 per month for the remainder of the period. A first time member dues will be prorated at \$15.00 per month for the remainder of the period. Members over 30 days delinquent, will not enjoy entry fee discounts, or voting privileges. Any officer or Board of Director member must be paid in full to be eligible to serve. The DUES are “Family” fees, and shall include all members of the one family under one household and under 100% support of their parents. They shall have all club privileges and the parent, except voting. ONE (1) VOTE PER PAID UP “FAMILY MEMBERSHIP”. Family members will be issued a gate key to use for practice days except during scheduled events. A member may bring a guest to use the track one time only to run the members kart, but if the GUEST acquires a kart, he must pay appreciate member’s fees.

Article VII—AMENDMENTS

Sec. 1 Amendments, alterations or changes to these By-Laws must be submitted in writing by the proponent at a regular monthly meeting of the KARTING ASSOCIATION OF LUBBOCK D/B/A LUBBOCK KARTING ASSOCIATION and if accepted by a majority vote of, or change in, these By-Laws if received by a two-thirds (2/3) majority vote of the members present. The Secretary/Treasurer must give all members at least three (3) Days notice in writing before final action can be taken.

Article VII—DISSOLUTION

Sec. 1 At the time of dissolution, all unexpended assets shall be donated to a charity elected by vote of the membership from among the suggested not-for –profit organizations including United Way of Lubbock, Boy’s Clubs of America, and Muscular Dystrophy Association.

LKA RULES

I. Facilities

LKA members are provided with a well-maintained facility for racing and practice use. Please observe the following rules to ensure that it remains available for all who wish to use it.

- A. The Sleepy Hollow sprint track is free to use for practice by LKA members in good standing on days that there is NO LKA activity scheduled on either County Line Speedway OR Sleepy Hollow sprint track. There shall be NO karting activity prior to 9:00 AM, and all karting activity shall cease at dusk. Our neighbors have been very kind to accommodate our karting activities that are scheduled at night. It is our responsibility to keep our noise to a minimum at other times so that we don't ever run into conflicts with our neighbors.
- B. The County Line Speedway is a dirt oval track, and as such, is only maintained in race-ready condition during times of scheduled events. NO use of the County Line Speedway is allowed without express consent of the race director responsible for County Line Speedway activity.
- C. Both tracks are for KART USE ONLY. Express consent of an LKA elected officer is required for facility use for any other purpose other than karting activity.
- D. If there is no organized, LKA sanctioned activity scheduled, safety is the sole responsibility of the individual LKA member(s) utilizing the facility. All members are responsible for ensuring that all race day regulations in regards to safety, equipment, and etiquette are observed. Practice at the LKA facility is at your own risk unless the activity is LKA sanctioned AND pit passes are issued.
- E. Members are required to have at least one other person present when using the facility.
- F. Past members or members not in good standing are prohibited from using the facility for practice at any time other than during scheduled events AND a pit pass has been purchased. Guests or potential members may utilize the facility for practice only when accompanied by a member in good standing. Non-member, guest use is limited to a maximum of two times. The sponsoring member is solely responsible for their guest.
- G. DO NOT drive or park on ANY concrete area. This includes trailers and tow vehicles.
- H. Close and lock ALL gates. This includes main and pit gates.
- I. Close all bathroom doors prior to exiting LKA property.
- J. Please remove all trash when exiting LKA property.
- K. ABSOLUTELY NO glass containers of any kind on LKA property.
- L. DO NOT tamper with any locks or lights.
- M. ABSOLUTELY NO CHEMICAL OR OIL DISPOSAL on LKA property. Contain and remove all used chemicals including but not limited to used oil, solvents, fuel, and any aerosol cans. Used oil ONLY may be disposed of in clearly marked used oil container(s) located in the pit area.
- N. Illegal/controlled substances of ANY kind are strictly prohibited on LKA property. Any person in violation of this rule may be subject to a permanent ban from LKA property.

This is YOUR facility! Please take care of it. Report any problems to an LKA official.

II. Drivers

All drivers participating on LKA property are required to observe the following guidelines. This applies to members and non-members alike.

- A. Simply by entering an LKA sanctioned event, a driver agrees to abide by these rules and any supplementary rules set by LKA not included in this book. The driver agrees to recognize as the only authority the officials of that event, a race committee of that event (if established), and the LKA Board of Directors.
- B. **PERSONAL CONDUCT:** The success or failure of a racing program is directly reflected in the conduct of its participants. This applies to everyone involved, including drivers, pit crews, and driver guests. It is the nature of competitive sports to have conflicts and disagreements. It is imperative that when conflicts arise, all parties involved maintain self-control. ANY conflict or dispute can be resolved if approached in a calm and rational manner. THE DRIVER is responsible for the conduct of all parties associated with them at an event. In the case of minors who compete in LKA sponsored events, responsibility lies with the parent or guardian of the competitor. Profanity, violence, or threats WILL NOT BE TOLERATED! In the event that a resolution cannot be reached between participants, notify an event official. LKA reserves the right to have participants and all associated parties removed from LKA property indefinitely and without prior warning. A family-friendly environment will be maintained at LKA. Don't let your temper ruin your day or the day of others around you.
- C. **SAFETY AND EXPERIENCE:** All drivers must demonstrate to the satisfaction of event officials that they are competent to participate in the event in a safe manner.
- D. **NOVICE DRIVERS and FIRST-TIME PARTICIPANTS:** First-time participants at the LKA facility ARE REQUIRED to notify an LKA event official that they are a first-time participant. An LKA event official will determine the status of the participant. The LKA event official will give further instruction to the first-time participant as necessary. Failure to notify an LKA event official may, at LKA discretion, disqualify the participant for that event. Novice and/or beginner drivers must demonstrate to LKA officials the ability to operate a kart in the context of the event in which they wish to participate. An "X" must be prominently displayed on the back of the novice driver's helmet, AND an "X" or stripe must be displayed on their kart's number panels. ALL novice and/or beginner drivers MUST start all heat and/or main event sessions at the rear of the field for a minimum of TWO race event dates. This period may be amended by the LKA event Race Director.
- E. It is the responsibility of the participant to withdraw from competition if they are taking any medication or substance that might impair their ability to safely participate.

III. Karts

This section is not an attempt to entirely define the technical specifications of all karts. The following rules are only the rules common to all karts competing at LKA tracks. Specific technical specifications are found in the applicable national/international sanctioning body rulebooks.

- A. GENERAL TECH INSPECTION: Technical inspectors shall thoroughly examine each kart. When a kart passes all inspections, it shall be allowed to operate on the track. Karts must be registered and pre-race inspections must be complete before they are permitted on-track. Technical inspectors shall inspect, but not limited to the following:
1. SUITABILITY FOR COMPETITION: The basic design of the kart must be suitable for high performance AND safety. The opinion of the inspectors and race officials shall be final.
 2. CLEANLINESS: Karts must have a neat and clean appearance. If the kart is not acceptably clean, a thorough technical inspection cannot be properly performed.
 3. TIRES: Tires shall be new and/or in good condition with no apparent flaws. Tires must be pneumatic, designed for racing applications only, with a maximum diameter of 12.5" and a minimum diameter if 9.0".
 4. BRAKES: Brakes must be in proper working order, and properly adjusted. The bolts securing the master cylinder and caliper MUST be safety wired or cotter keyed so that the nut and/or bolt cannot loosen. Castellated nuts are recommended. The brake pedal must be secured to the kart and safety wired or cotter keyed.
 5. WHEEL BEARINGS: Wheel bearings should be properly adjusted so that there is no excessive wheel play. Clip-on balancing weights shall not exceed ¼ ounce each. Wheel material is optional, but must be of proven design capable of maintaining tire bead seal in competition conditions.
 6. REAR-AXLE: The rear-axle assembly may be solid or tubular of one-piece design. The minimum axle diameter is 25mm (25.4mm=1 inch). Both drive wheels must be locked to the rear axle with a "live" axle design.
 7. THROTTLE: Karts MUST be equipped with a foot throttle having a self return spring which will close the throttle when released.
 8. STEERING: Front steering shall be of a suitable design in proper working order, and properly adjusted for maximum safety. A SOLID steering shaft must be minimum .625" diameter cold rolled steel, one piece design. Wheel attachment must be secured with a quality nut or cap screw in an axial position with the centerline of the shaft. Welding the steering wheel to the hub or the hub to the upper shaft is not allowed. Also allowed is a hollow steering shaft minimum .700" diameter, one piece design, with .070" wall thickness, and a hub minimum 5/16" diameter fastener at end. The steering hub (one piece, not welded) will secure through the axis with 5/16" diameter bolt parallel to the axis point.
 9. FRAME: The frame shall be checked by the inspector for design and defects which would tend to impair the safety of the kart. Particular attention is to be given to all welds. The material must be a minimum 1.0" diameter, .083" wall thickness, cold rolled electric weld (ERW) steel tubing or other material of AT LEAST equal strength. Main frame members may be higher than a line projected horizontally between the front and rear wheel hubs. The wheelbase minimum is 40.0", and maximum 43.0"
 10. TREAD WIDTH: The minimum tread width is 28.0" as measured from the outside of one tire to the inside of the opposite tire measured laterally. Overall maximum width for all karts is 55.0".

11. BUMPERS: Front and rear bumpers are required on all karts. Wings and fairings will be checked to determine whether they would constitute a hazard. Bumpers are recommended to be constructed of minimum .750" diameter tubing. Side nerf bars are required. Approved pods may be attached to nerf bars. Side nerf bars shall be constructed of steel tubing. Side bars/pods may not protrude laterally beyond the rear tires.
 12. CHAIN/BELT GUARDS: All chain, belt, or gear driven karts must be equipped with a guard designed to retain a broke chain, belt, or gear in the event of failure. CHAIN OILERS ARE PROHIBITED.
 13. All weights must be bolted on with a minimum bolt diameter of 5/16 and the nuts must be safety wired or cotter pinned. The double nut process is allowed but not preferred. Any single weight weighing more than 7.5 lbs must be attached by 2- 5/16 bolts that are safety wired or cotter pinned. The weight must be painted white and have the kart number or drivers name on it. Any lead shot must be inside the frame rails and completely sealed so it cannot leak onto the racing surface. Duct tape is not allowed to seal frame rails.
 14. CATCH CANS: Catch cans are mandatory for all 4-cycle (engine) and shifter classes (radiator and fuel) with the exception of Comer motors as designed by the manufacturer.
 15. FIRE SAFETY: All racers are required to have in their pits a fire extinguisher minimum of 2 ½ lb. ABC rating.
 16. RULEBOOK: A copy of LKA Rules must be in every driver's pit on race days.
- B. MUFFLERS and EXHAUST:
1. Mufflers are required on all kart engines in all kart classes, NO EXCEPTIONS. Please see class rules for muffler specifications specific to that class.
 2. Exhaust systems must be constructed in such a way that exhaust gasses are directed away from and to the rear of the driver. The exhaust system MAY NOT project sideways past the outer edge of the wheels of the kart, OR rearward past the rear bumper of the kart. Any projections over ¼ inch in length must have a 2 inch O.D. blunt surface. The exhaust system must be entirely intact prior to and at the conclusion of an event. At any time during participation, if the exhaust system integrity is noticeably compromised, or a muffler/silencer falls off, the kart will be black flagged, and must immediately exit the competition area.
- C. NUMBERS and NUMBER PANELS:
1. All karts are required to display black numbers on a white background panel. At Sleepy Hollow, NO other color combination is acceptable. For County Line Speedway ONLY, a SOLID black body may display WHITE numbers. Numbers must be a minimum of approximately 6 inches high. Karts in violation of number display rules will not be scored.
 - a. SPRINT KART: All sprint karts must display 3 specified numbers/panels , affixed to the front, left and right sides of the kart
 - b. SPEEDWAY KART: All speedway karts must display 3 specified numbers/panels, affixed to the front, left, and right sides of the kart.
 2. Only one instance of a given number may participate in a particular class. Separate registrations must be completed for each class, and registration must be separately requested for Sleepy Hollow and County Line Speedway.
- D. TRANSPONDERS:
1. Transponders are required equipment on all karts competing at County Line Speedway. Karts without functional, registered transponders will not be scored. Transponders are registered to a specific kart and driver. If the registered kart number or driver changes, it is the sole responsibility of the driver to notify LKA officials before the event. Any discrepancy in registration details is noted during an event, the competitor may not be scored at the

race director's discretion. If the transponder IS verified in pre-race tech, and becomes non-functional, or falls off during competition, event officials will determine the finishing position of the kart in question. If position cannot positively be determined by race officials, last place points will be awarded to the kart in question. A transponder must be affixed to the kart before the next heat; otherwise the kart will not be further scored, and may be black-flagged from subsequent heats. Contact LKA officials for details regarding obtaining a transponder. Transponders are available for rent from LKA.

IV. Pit Rules:

- A. A pit pass IS REQUIRED for entry into the pit area during any scheduled LKA event. NO EXCEPTIONS!
- B. Each entrant is responsible for his/her pit area. This includes trash, equipment, and crew/guests. Please keep the pit area free of trash and debris. During County Line Speedway events, this includes mud. Mud must be removed from pit area upon event conclusion. This facility is dual-use. Dirt and asphalt events utilize the same pit area. If the pit area is not left clean by the entrant, he/she, at LKA's discretion, may be prohibited from further participation or facility usage.
- C. NO DRIVING OF KARTS IN PIT AREA WILL BE TOLERATED! Karts must be pushed by hand when moving through the pits. This applies to all karts, including those that must be push-started.
- D. Consumption of alcoholic beverages is prohibited during any LKA scheduled track event. Only after the event has concluded and the track is closed shall the consumption of alcoholic beverages be allowed. Any participant, guest of a participant, or crew member that is observed consuming alcoholic beverages or controlled substances during an event (either practice or race) may be banned from LKA property for (6) months and the driver will forfeit all points for the year.
- E. Illegal/controlled substances of ANY kind are strictly prohibited on LKA property. Any person in violation of this rule may be subject to a permanent ban from LKA property.
- F. Each driver is required to have a A,B,C rated fire extinguisher in their pit area at all times.
- G. Skateboards, roller skates, bicycles, ATV's, or "non-kart" vehicles are banned from operating in the pit area during LKA events. Karts that require a push vehicle must be hand-pushed to the LKA designated starting grid.

V. Race Days:

A. FEES:

1. **ENTRY FEES:** On LKA event race days a separate entry fee will be charged for each individual class entry.
2. **PIT PASSES:** ALL people who enter the designated pit area are required to purchase a pit pass and sign-in at the registration station, **NO EXCEPTIONS**. Minors must be accompanied by a legal guardian and have a release form (signed by the accompanying legal guardian) on file with LKA.
3. **REFUNDS:** There are **NO REFUNDS** of entry fees or pit pass fees. If an event is cancelled prior to the start of competition, the **ENTRY FEE** may be applied to the **NEXT SCHEDULED** event, however, a new pit pass must be purchased for that event.

B. SCHEDULE: Scheduled events for both Sleepy Hollow and County Line Speedway will be posted on the LKA website. LKA reserves the right to amend the published schedule at any time and without prior notice. It is the competitor's responsibility to monitor the LKA website for scheduling information.

1. **SLEEPY HOLLOW:** Club races are scheduled every month during the year. Points are awarded to LKA members in good standing during club race events from April through November. Minimum requirements have been established to determine what class championships will be eligible for awards at the end of the year. Pit passes are \$5.00 each.
2. **COUNTY LINE SPEEDWAY:** Race events are scheduled at the County Line Speedway from April through October. All **RACE** events scheduled at County Line Speedway are points awarding events. Scheduled practice events are not points awarding events. In the event that a race must be cancelled, it may be re-scheduled or cancelled. Points awarding races not scheduled before the start of the season may be necessary if an event is cancelled. LKA does not guarantee "make-up" points races in the event of a cancellation. Pit passes are \$10.00 each.

C. ENTRIES: The kart is the official entry, not the engine or driver. The driver of record for a particular kart shall receive any awarded event points. Sleepy Hollow requires that the driver of record qualify (if required) and take the green flag for the first lap of an event before they will be awarded points for that event.

D. OFFICIALS: Officials of any event shall have (and exercise) their power during the entirety of any event, including practice and special events. **THE BOTTOM LINE:** If you are unsure, unclear, or unaware, it is solely **YOUR** responsibility to contact an event official.

VI. Race Heats:

A. SLEEPY HOLLOW

1. Race events will normally run according to the following heat structure. The number of laps run may be modified at the Race Director's discretion. If a modified structure is to be run, competitors will be notified prior to the start of the heat. Please see sec. II "Drivers" for additional information concerning novice drivers.
 - a. HEAT ONE: The grid for this heat will be set according to "pill draw" with the lowest drawn number seeded highest on the grid, second highest seeded second, and so-on. Points will be awarded for heat finishing position. Normal length: 8 laps.
 - b. HEAT TWO: The grid for this heat will be set by inverting the field set for heat one. Points will be awarded for heat finishing position. Normal length: 8 laps.
 - c. HEAT THREE: The grid for this heat will be set according to heat points earned in the first two heats. The kart with the lowest heat point total for the first two heats will be seeded first, the second lowest point total seeded second, and so-on. In case of multiple karts earning the same number of heat points, the pill-draw will be used as a tie-breaker. In the case of a tie, the driver with the lowest drawn number will be seeded highest in the grid, the second highest number seeded next, and so-on. If a kart failed to take the green flag in heat one or two; that kart will start at the rear of the field for heat two. Karts that DNF in the first or second heat, but took the green flag, will start from the rear, and will be seeded ahead of any karts that DNS during the second heat. Points will be awarded for all heat finishing positions. Normal length: 10 laps.
 - d. TIME TRIAL: For some events, a time trial system may be used to determine the grouping of participants into a class, and to determine their starting position for the first heat.

TIME TRIAL PROCEDURES:

- i. The driver will start his qualifying lap at which time the flagman decides to give the green flag. A driver may return to the pits BEFORE taking the green flag. IF TIME PERMITS, he will be given ONE additional attempt. However, once the green flag is taken, the driver is "on time." There will be no re-times unless permitted by race officials.
- ii. CLASSES DETERMINED BY TIME TRIALS: The fastest time for a particular class establishes the "BASE" time for that class. If during the race heats, a driver is "TIMED" at 0.6 seconds faster than the base time of that class, he will "BREAK OUT," and will be black flagged immediately and will be "BUMPED" to the next faster class, with all accumulated points forfeited. This restriction is designed to eliminate "sandbagging" on time trials and applies to all except the fastest classes. It is possible to be bumped up more than once during an event.

When time trials are used to "set the field," the pill draw will serve to set the qualifying order, and the qualifying times will take the place of the pill draw number normally used

to set the grid for the first heat, and will serve as the tie-breaker in the event of a heat points tie between multiple karts.

2. POINTS: A kart that does not start a heat (DNS) shall receive NO POINTS for that heat.
 - a. HEAT POINTS: LKA uses the MOTO-CROSS scoring system for all Sleepy Hollow heat races.

1 st - 400	5 th - 127	9 th - 40	13 th - 14
2 nd - 300	6 th - 95	10 th - 30	14 th - 12
3 rd - 225	7 th - 71	11 th - 22	15 th - 11
4 th - 169	8 th - 53	12 th - 17	16 th - 10

- b. EVENT (CHAMPIONSHIP) POINTS: LKA awards points towards the season championship per the WKA national points system. The driver with the highest heat point total for a given class during an event earns championship points as follows for that class.

1st-200 + #entries	5th-130 + #entries	9th-90 + #entries	13th-65 + #entries
2nd-175 + #entries	6th-120 + #entries	10th-80 + #entries	14th-60 + #entries
3rd-155 + #entries	7th-110 + #entries	11th-75 + #entries	15th-55 + #entries
4th-140 + #entries	8th-100 + #entries	12th-70 + #entries	16th-50 + #entries

B. COUNTY LINE SPEEDWAY:

1. Race events will normally follow the following heat structure. The number of laps run may be modified at the race director's discretion. If a modified structure is to be run, competitors will be notified prior to the start of the heat. Please see sec. II "Drivers" for additional information concerning novice drivers.
 - a. HEAT ONE: The grid for this heat will be set according to "pill draw" with the lowest drawn number seeded highest on the grid, second highest seeded second, and so-on. Points will be awarded for heat finishing position. Normal length: 8 laps.
 - b. HEAT TWO: The grid for this heat will be set by inverting the field which took the green flag in heat one. If a kart failed to finish the first heat (DNF); that kart will start at the rear of the field for heat two. The pill draw will serve as a tie-breaker in cases of multiple kart DNF's. Karts that DNF in the first heat, but took the green flag will be seeded ahead of karts that did not start the first heat (DNS). Lowest draw seeded highest, and so-on. Points will be awarded for heat finishing position. Normal length: 8 laps.
 - c. "MAIN EVENT": The grid for this heat will be set according to heat points earned in the first two heats. The kart with the highest heat point total for the first two heats will be seeded first, the second highest point total seeded second, and so-on. In case of

multiple karts earning the same number of heat points, the pill-draw will be used as a tie-breaker. In the case of a tie, the driver with the lowest drawn number will be seeded highest in the grid, the second highest number seeded next, and so-on. Normal length will vary depending on class and number of participants.

2. POINTS: A kart that does not start a heat (DNS) shall receive NO POINTS for that heat. In the event that there are more than 16 karts in a class, that class will be split into multiple groups (A, B, C, etc.); with points awarded for each individual group. The race director has sole responsibility for deciding group makeup. Example: If there were 24 karts in a given class, that class would be split into “A” and “B” groups, with 12 karts in each group. There would therefore be first place points awarded in each group, second place points awarded in each group, and so on.
 - a. HEAT POINTS: LKA uses the following scoring system for all County Line Speedway heat races.

1 st - 400	5 th - 127	9 th - 40	13 th - 14
2 nd - 300	6 th - 95	10 th - 30	14 th - 12
3 rd - 225	7 th - 71	11 th - 22	15 th - 11
4 th - 169	8 th - 53	12 th - 17	16 th - 10

- b. EVENT (CHAMPIONSHIP) POINTS: LKA awards points towards the season championship per the WKA national points system. The driver with the highest heat point total for a given class during an event earns first place championship points as follows for that class, second highest earns second place championship points, and so on. If a class is not “FULL”, at a given event, “participation” points will be awarded. “Participation” points will be: 1st-40 points, 2nd-30 points. Like heat points, championship points will be awarded similarly in the event that a class is split into multiple groups. If there are multiple groups, there will be multiple karts awarded first place points, multiple karts awarded second place points, etc.

1st-200 + #entries	5th-130 + #entries	9th-90 + #entries	13th-65 + #entries
2nd-175 + #entries	6th-120 + #entries	10th-80 + #entries	14th-60 + #entries
3rd-155 + #entries	7th-110 + #entries	11th-75 + #entries	15th-55 + #entries
4th-140 + #entries	8th-100 + #entries	12th-70 + #entries	16th-50 + #entries

C. STARTS:

1. Only LKA race officials may release karts onto the track from the starting grid. Once the official has directed the karts to enter the track, any karts that have stalled or failed to start will have a maximum of 90 seconds to take the track, and may only take the track as directed to do so by an LKA official. Once the grid has been cleared, or the 90 seconds has elapsed the flagman may throw the green flag at his discretion. There will be a minimum of ONE parade lap before the green flag is waved.
 2. Once a kart has left the grid and entered the track, there will be NO PUSHBACKS. Restarts are permitted only as follows:
 - a. Asphalt shifters may use a standing start from an on-track grid. Shifters who stall in the process of reporting to their assigned grid space may be re-started. Karts that stall AFTER properly gridding ARE NOT permitted to re-start, and must be pushed off-track.
 - b. Karts equipped with an onboard starter system are permitted to restart and SAFELY return to racing provided they can be restarted without assistance AND without the driver leaving the driver's seat.
 - c. An LKA race official has specifically directed a kart to be re-started.
 3. Except for special event races, and some asphalt shifter races, rolling starts are used for all heat and main event races. It is the responsibility of the "pole" driver to set the pace for the start of the race. During parade laps, it is the responsibility of the "pole" driver to set a pace slow enough to allow the karts behind them to catch up. If a kart fails to report to the track, stalls on-track, or leaves the track before a start, karts should "MOVE UP" to fill the vacant spot. DO NOT cross over to fill a vacant position. It is the responsibility of the "field" to maintain the pace set by the "pole" kart. At the discretion of the flagman, one restart may be allowed if proper pace is not maintained by the "field" relative to the pole-sitter. If the flagman suspects that a driver or drivers are trying to "jump the start", that driver or drivers may be moved to the rear of the field at the flagman's discretion.
 4. When the flagman is satisfied that the field is satisfactorily lined up, the race starts upon the display of the green flag. If the green flag has not waved, the race HAS NOT STARTED. The field must immediately return to a pre-race pace, and the field must re-form. THERE WILL BE ABSOLUTELY NO PASSING BEFORE THE START/FINISH LINE DURING STARTS/RESTARTS. If a kart advances its position prior to crossing the start/finish line, the flagman may throw the yellow flag, move the offending kart(s) to the rear of the field, and restart the heat.
- D. DELAYS:
1. MECHANICAL: LKA understands that from time to time mechanical problems may delay a competitor from taking the grid when their class is called. In these cases, it is the responsibility of the driver to inform LKA officials of problems BEFORE their class is called to the grid. ONLY at the LKA race director's discretion, the start of a race may be delayed until that driver is prepared.
 2. WEATHER: If an event must be cancelled due to weather or other unforeseen emergency BEFORE the event has started, the event MAY BE RESCHEDULED at the discretion of LKA officials. If an event has ALREADY STARTED, and the first heat has been completed, LKA reserves the right to "call the race" and issue championship points based on the completed heat(s).

- E. CAUTIONS: In the event of a caution during a heat or main race, the field must immediately slow to the pre-race pace. The field will be formed according to the running positions of the competitors at the conclusion of the PREVIOUS lap. The kart(s) responsible for bringing out the caution flag is required to go to the rear of the field prior to re-starting the race. ONLY at the flagman or race director's discretion may a kart involved in the caution return to their previous position. A kart binging out THREE cautions in a given heat MAY be given a black flag and disqualified for that heat. Drivers should be aware that although a full course caution may not be in effect, there can be a "local" caution at any point on the track. Drivers are required to observe the "local" caution. Failure to observe the "local" caution may result in event disqualification.
- F. END OF HEAT/MAIN:
1. At the conclusion of each heat, including the main event(s), each competitor must check their weight at the scales before returning to their pit areas. Failure to weigh BEFORE proceeding to the pit area may result in forfeiture of all event points and awards.
 2. At times, circumstances dictate the necessity to end a heat/main prior to completing the scheduled number of laps. In the event that this becomes necessary, the flagman shall warn the competitors by displaying the white flag, signifying that there is one lap remaining in the event.
 3. Should there be a caution thrown with one lap remaining in the event, the flagman will display the green and white flags for the restart. The checkered flag will be given when the karts return to the start/finish line.
 4. At the conclusion of the main event, the top three finishers in each class MUST report DIRECTLY to the designated tech inspection impound area after weight check, BEFORE returning to the pit area. Karts subject to tech inspection shall not be touched without LKA race director approval, and karts shall not leave tech inspection area until released by LKA race director. During tech inspection, only the drivers or their designate will be allowed to communicate with the technical inspector during the inspection process. Failure to follow the above procedure WILL result in immediate disqualification and forfeiture of main event points and position. LKA reserves the right to disqualify the kart and driver for the entire event if the violation is deemed a blatant attempt to circumvent the rules.

VII. Driving Regulations:

- A. KARTING IS A NO-CONTACT SPORT. LKA understands that at times contact is unavoidable. However, any intentional bumping, crowding, blocking, or other unsportsmanlike conduct will NOT BE TOLERATED. A driver acting in an unsportsmanlike manner is subject to a one-lap penalty or immediate disqualification.
- B. If a kart comes to a stop during practice or a race, the driver is required to immediately raise both arms to signal other drivers and officials. He should then remove his kart to a safe location (off track) as quickly as possible.
- C. If during practice or a race, a driver wishes to pull into the pits or they slow abruptly, the driver MUST warn other drivers by raising one arm to signal other drivers and officials.
- D. DO NOT push karts across the track unless the flagman has directed you to do so.
- E. If all four wheels of the kart leave the track during a race, the driver may re-enter the race when it is safe to do so. However, they MAY NOT improve their position in the race by doing so.
- F. DO NOT under any circumstances drive in the opposite direction of the event being held.
- G. When two karts enter a turn together, the kart that is behind, whether it is an inch or several feet, is required to negotiate the turn WITHOUT endangering or impeding the kart in front. Likewise, the front kart SHOULD NOT take a line through the corner for the purpose of crowding another competitor. The reference point for determining position will be the leading edge of the nose of the karts.
- H. A kart must cross the finish line under its own power or momentum. A kart shall not be pushed, pulled, or powered by any outside influence.
- I. During pre-race pace laps, if the field passes the start/finish line without taking the green flag, all drivers must raise their hand to signal that they recognize the need to re-group the field.
- J. Drivers shall not deliberately stop on-track to work on their kart or receive crew help or advice. If an LKA race official suspects a competitor has intentionally forced a caution, they WILL be moved to the rear of the field prior to restarting the race. Likewise, pit crews and family ARE PROHIBITED from entering the track. Karts should return to the pits if they need to stop. ONLY AT THE DIRECTION OF THE STARTER/FLAGMAN shall any person enter the track area at any time. A driver may be penalized for the actions of those associated with them.
- K. If a kart becomes disabled and is not able to proceed under its own power after it has taken the green flag, that kart must return to the pits and MAY NOT RE-ENTER the race. Only by direction of the Starter/Flagman may a kart return to the race after leaving the track.
- L. If a kart has become disabled, it is STRICTLY FORBIDDEN to push the kart in a direction that is opposite to that of competition without specific direction from an LKA official. Infringement of this rule is grounds for immediate event disqualification.
- M. Participants about to be lapped by a faster kart(s) are responsible for being aware of the approaching faster kart(s) and MUST yield the racing line until the faster kart(s) has/have passed. Lapped karts shall observe the passing (BLUE) flag or subject themselves to potential disqualification.
- N. On the track, officials may designate portions of the track as "local" caution zones, indicating areas of extraordinary hazard, requiring no passing or special care on the part of the

participants. These zones will be identified by a “local” yellow flag. When two karts arrive at a “local” caution zone together, the overtaking kart shall not obstruct the overtaken kart, either by causing the overtaken kart to apply their brakes or alter their course.

- O. Scuffing or “heating” tires by means of “waving” or quick back and forth motion is STRICTLY PROHIBITED.

VIII. Officials:

All officials shall be qualified and familiar with all rules and regulations.

- A. **RACE DIRECTOR:** The Race Director shall be that official having COMPLETE charge of the karts during an event. He shall disqualify (through signals to the Starter/Flagman) any driver who, in his opinion or that of his observers, is in violation of the rules or whose kart has become unsafe to operate. He is also in charge of the corner marshals.
- B. **PIT STEWARD:** The Pit Steward shall be that official having charge of the pit area and any officials working in this area. He will direct all kart safety checks, and report any irregularities or violations to the Race Director.
- C. **CHIEF SCORER:** The Chief Scorer shall be the official in charge of timing and scoring. They shall keep the information of starting position, race position, laps run, finishing position, and other matters related to timing and scoring.
- D. **STARTER/FLAGMAN:** The Starter/Flagman shall be the official having COMPLETE charge of the flags. The flagman shall have complete control of all karts once they have entered the designated competition area (the track). The flagman shall follow instructions from the Race Director. While there are karts on the track, whether during a race, practice, or exhibition, there will be ABSOLUTELY NO COMMUNICATION WITH THE FLAGMAN by anybody other than LKA officials. Remember participants, YOU are responsible for the conduct of your crewmembers and guests. Interference with the flagman during any track activity may result in your immediate disqualification!

IX. Flags:

The following LKA flags will be obeyed without question. Should conditions exist whereby drivers cannot easily distinguish the various flag colors, the Race Director will call a special meeting to advise all drivers and crew members of any required changes.

- A. GREEN: Displayed at the start of the race or practice session, and is kept visible as long as the track is clear for race or practice activity.
- B. GREEN & WHITE CROSSED: This signals that the heat has reached half-way.
- C. YELLOW: Used instead of the green flag if the track is partially blocked by accident, emergency vehicles, or objects that pose a danger to the competitors. It means to slow down to a pre-race pace, use caution, and hold your position. There is NO PASSING while the yellow flag is displayed. Drivers should be prepared to stop any time the yellow flag is displayed. If the yellow flag is displayed as a "local" caution on the track, drivers should drive with caution in that area. Drivers should not pass in an area of a "local" caution. Once a driver has cleared an area where a "local" caution flag has been displayed, they may resume normal racing.
- D. RED: STOP IMMEDIATELY! Clear the track as directed to do so as the track is hazardous and unsafe for racing. Any driver found disobeying the red flag will be IMMEDIATELY disqualified from the event, and will be subject to suspension.
- E. RED & YELLOW TOGETHER: Restart. Return to a pre-race pace and re-form for a restart.
- F. WHITE: One lap to go.
- G. WHITE WITH RED CROSS: An emergency vehicle is on the track. Slow down, use caution, and hold your position. Be prepared at all times to give emergency vehicles a wide berth. NO PASSING
- H. BLACK WITH ORANGE DOTS: Tells a driver that he has defective equipment and must IMMEDIATELY return to the pits for repairs.
- I. BLACK: Continue one more lap at reduced speed and return to your pit. This flag results in the disqualification for that heat, and will not receive any points for that heat. A driver who chooses to ignore the black flag will be subject to IMMEDIATE EVENT DISQUALIFICATION and forfeit all event points. Drivers must remember that they may have received the black flag due to a mechanical defect of which the driver may be unaware, and must carefully proceed to the pits.
- J. CHECKERED: The heat, race, or practice session has concluded. Complete ONE more lap at reduced speed before exiting the track and returning to the pits. All competitors must stop at the scales to check their weight once the checkered flag has waved following the conclusion of a heat or main event race.
- K. BLACK AND CHECKERED TOGETHER: During the running of an event or heat, the Race Director or Starter/Flagman may use both the checkered and black flags simultaneously to finish the event or heat if there is suspicion or reports of foul, rough, or illegal driving, or unsportsmanlike conduct. The event or heat will be considered finished under official protest by the Race Director or Starter/Flagmen. After a conference of the race officials, the Race Director will state findings or rulings to the entrant(s) involved if an infraction of the rules has occurred.

X. Protests:

All protests involving engine legality and driver conduct shall be submitted by a legal entrant in the same class that the protest occurred.

All protests shall be submitted in writing to the Race Director of the event within 30 minutes after the given competition, heat, or race in which the protest infraction occurred. Any verbal conversation with any LKA officials shall be in private, subject to immediate disqualification.

XI. Required Protective Equipment:

LKA officials require the following protective equipment when operating a kart on LKA property or in an LKA sanctioned event. LKA reserves the right to modify or supplement these requirements without notice as deemed necessary to ensure the safety of the participants. All equipment is subject to inspection by LKA officials at any time. If hair extends appreciably from beneath helmet level, it is mandatory that the participant wears a “balaclava” or head-sock retaining hair from extending outside the helmet. Also, no loose apparel items such as bandannas, sweat hoods, loose belts, etc. will be permitted.

A. **HELMET:** Helmets must comply with 2014 NKA guidelines as follows:

All helmets used at an LKA event must be full coverage (full face), with the face-shield installed, and designed for competitive motorsports use complying at:

- Snell SA or M 2015 (legal through 2025)
- Snell SA/K or M 2010 12/2020
- CMS 2007 youth helmet 12/2019
- CMR 2007 youth helmet 12/2019
- CMS 2016 12-2026
- CMR 2017 12-2026
- Snell SA 2010 12-2020
- SFI
- SFI 24.1/2010 12/2020
- SFI 31.1/2010 12/2020
- SFI 41.1/2010* 12/2020
- *not legal for vehicles with driver restraint systems
- SFI 24.1/2013 Expires 12/2023
- SFI 31.1/2013 Expires 12/2023
- SFI 41.1/2013 Expires 12/2023
- BSI A-type and A/FR types are legal for 10 years after date of manufacture.

“Youth Helmets” are not intended for adults regardless of the fit!”

- B. **CLOTHING:** All drivers are required to wear jackets of leather, vinyl, or abrasive resistant nylon and full length abrasive resistant pants to minimize abrasions. Full driving suits of similar material are also acceptable. Shoes, socks, and gloves are required.
- C. **HELMET SUPPORTS:** Use of racing helmet supports (rolls) is mandatory for all Rookie and Junior divisions. They are not mandatory, but recommended, for all senior divisions. If a Rookie or Junior driver loses a helmet support on track, they shall be removed from the course and will not be able to return to competition. A senior driver that elects to use a Helmet Support shall not receive a Black Flag for losing a helmet support. Advanced neck and head supports are highly recommended for drivers of all ages.
- D. **CHEST PROTECTORS:** All rookie and juniors drivers up to 13 years in all divisions are required to wear a chest protection device with SFI specifications. Up to 8 years (actual age) SFI20.1/1
- E. **EAR PROTECTION:** Although not required, ear plugs are strongly recommended.

XII. Awards:

A. EVENT AWARDS:

1. SLEEPY HOLLOW: Finishers in a given class are awarded a trophy placard (up to the top six places). Only LKA members in good standing are eligible to receive awards.

2. COUNTY LINE SPEEDWAY: Awards are distributed to the top finishers in "full classes."

Awards are dependent on the number of competitors in a given class.

B. ANNUAL CHAMPIONSHIP AWARDS: Class championship awards are awarded annually during the LKA awards ceremony after the "points-series" races have been completed. A class "qualifies" for a championship award IF AND ONLY IF there is a season AVERAGE of THREE karts in that class for the ENTIRE points season AND the driver is qualified. A driver "qualifies" for championship awards (junior and senior) IF AND ONLY IF that driver competed in a MINIMUM of 60% of the "point-series" races.

XIII. Classes:

During a race event, a class will be considered “FULL” if there is a MINIMUM of THREE karts competing in that class. LKA runs all classes as “local option”. At LKA discretion, similar classes may be grouped together to constitute a “local-option” class, and will be awarded accordingly. Additionally, LKA recognizes classes defined by WKA (World Karting Association) and NKA, and where not specifically referenced in this rulebook, or where there is a conflict that might cause a safety concern, LKA “local option” rules will be superseded by WKA rules. The Rotax Class will run by the Rotax International Rules. Any classes not officially recognized by WKA must be approved by LKA officials before they will be allowed to take the track or compete. All classes will follow the event competition rules in this rulebook.

A. SLEEPY HOLLOW “LOCAL-OPTION” CLASSES:

1. KID KART:

- a. All Kid Kart Class participants shall be equipped with Kid Kart chassis and a Comer C-50 or C-51 stock motor. No modifications to the motor shall be allowed except aftermarket air filter.
- b. 89 tooth sprocket only allowed.
- c. Driver age shall be a minimum of 5 to 8 years old maximum.
- d. Open tire rule.

2. JR I 4-STROKE:

- a. ENGINES
 - i. CLONE: All JR I Class participants using the clone engine shall be equipped with a Purple Restrictor Plate (.500 +/- .0002) between the carburetor and intake manifold.
 - ii. BRIGGS LO-206: All JR I Class participants using the Briggs and Stratton LO-206 engine shall have a Red Carburetor Slide installed.
- b. Weight with driver shall be a minimum 235 lbs. for sprint karts.
- c. Driver age shall be a minimum of 8 to 12 years old maximum.
- d. Burris B44A or B44B or Dunlop SL-4 tires only.

3. JR II 4-STROKE:

- a. ENGINES
 - i. CLONE: All JR II Class participants using the clone engine shall be equipped with a Blue Restrictor Plate (.550 +/- .0002) between the carburetor and intake manifold.
 - ii. BRIGGS LO-206: All JR I Class participants using the Briggs and Stratton LO-206 engine shall have a Blue Carburetor Slide installed.
- b. Weight with driver shall be a minimum 285 lbs. for sprint karts.
- c. Driver age shall be a minimum of 13 to 15 years old maximum.
- d. Burris B44A or B44B or Dunlop SL-4 tires only.

4. SENIOR 4-STROKE LIGHT:
 - a. ENGINES
 - i. CLONE: Class participants using the clone engine shall have No Plate between the carburetor and intake manifold.
 - ii. BRIGGS LO-206: Class participants using the Briggs and Stratton LO-206 shall have a Black Carburetor Slide installed.
 - b. Weight with driver shall be a minimum of:
 - i. CLONE: 330 lbs.
 - ii. BRIGGS LO-206: 355 lbs.
 - c. Driver age shall be a minimum of 16 years old.
 - d. Burris B44A or B44B or Dunlop SL-4 or La Cont red tires only.
 5. SENIOR 4-STROKE HEAVY
 - a. ENGINES
 - i. CLONE: Class participants using the clone engine shall have No Plate between the carburetor and intake manifold.
 - ii. BRIGGS LO-206: Class participants using the Briggs and Stratton LO-206 shall have a Black Carburetor Slide installed.
 - b. Weight with driver shall be a minimum of:
 - i. CLONE: 375 lbs.
 - ii. BRIGGS LO-206: 375 lbs.
 - c. Driver age shall be a minimum of 16 years old.
 - d. Burris B44A or B44B or Dunlop SL-4 or La Cont red tires only.
 6. SHIFTER:
 - a. 125 CC Motor
 - b. Weight with driver shall be open.
 - c. Driver age shall be a minimum of 16 years old.
 - d. Open tire rule.
 7. ROTAX-LEOPARD (TAG):
 - a. Rotax or Leopard Motor.
 - b. Weight with driver shall be 370 lbs minimum for Leopard, 365 lbs minimum for Rotax.
 - c. Driver age shall be a minimum of 16 years old.
 - d. Tires: Bridgestone YHC, MG-Yellow or MOJO-D1.
 8. OPEN:
 - a. Any engine(s) with total displacement not to exceed 499cc
 - b. Weight with driver shall be open. No minimum weight.
 - c. Driver age shall be a minimum of 16 years old.
 - d. Open tire rule.
- B. COUNTY LINE SPEEDWAY "LOCAL OPTION" CLASSES:
- In addition to "local option" and WKA classes, LKA shall recognize as a separate entity, all official UAS (Unlimited All Stars) classes. Local option/WKA classes and UAS classes shall run separately when karts of both types are present. "Outlaw" winged karts that do not fall

under the technical rules of either organization shall compete under a separate technical addendum to this rulebook. As of 12/01/2012, due to lack of participation, LKA has not published an Outlaw rules addendum. Any participation by Outlaw 250 or Outlaw 500 karts is at the sole discretion of the event Race Director. Age restrictions for these classes shall remain in effect regardless of rules addendum publication. Any classes are subject to approval by LKA officials before taking the track for practice or competition.

1. OUTLAW JR BEGINNER:

- a. All Outlaw JR Beginner Class participants shall be equipped with Silver Restrictor Plate (.425 +/- .0002) between the carburetor and intake manifold.
- b. Weight with driver shall be a minimum 250 lbs. for caged kart.
- c. Driver age shall be a minimum of 5 to 8 years old maximum.
- d. Open tires.

2. OUTLAW JR I CLONE:

- a. All Outlaw JR I Class participants shall be equipped with Purple Restrictor Plate (.500 +/- .0002) between the carburetor and intake manifold.
- b. Weight with driver shall be a minimum 265 lbs. for caged kart.
- c. Driver age shall be a minimum of 8 to 11 years old maximum.
- d. Open tires.

3. OUTLAW JR II ADVANCED CLONE:

- a. All Outlaw JR II Class participants shall be equipped with Blue Restrictor Plate (.550 +/- .0002) between the carburetor and intake manifold.
- b. Weight with driver shall be a minimum 320 lbs. for caged kart.
- c. Driver age shall be a minimum of 12 to 15 years old maximum.
- d. Open tires.

4. JR I BRIGGS:

- a. All JR I Class participants shall be equipped with Blue Restrictor Plate (.425 +/- .0002) between the carburetor and intake manifold.
- b. Weight with driver shall be a minimum 250 lbs.
- c. Driver age shall be a minimum of 8 to 11 years old maximum.
- d. Open tires.

5. JR II ADVANCED BRIGGS:

- a. All JR II Class participants shall be equipped with Gold Restrictor Plate (.575 +/- .0002) between the carburetor and intake manifold.
- b. Weight with driver shall be a minimum 300 lbs.
- c. Driver age shall be a minimum of 11 to 15 years old maximum.
- d. Open tires.

6. SR FLAT HEAD BRIGGS:

- a. All SR Class participants shall be equipped with No Plate between the carburetor and intake manifold.
- b. Weight with driver shall be a minimum 340 lbs.
- c. Driver age shall be a minimum of 16 years old.
- d. Open tires.

7. PRO CLONE:
 - a. All SR Class participants shall be equipped with No Plate between the carburetor and intake manifold.
 - b. Weight with driver shall be a minimum 375 lbs.
 - c. Driver age shall be a minimum of 16 years old.
 - d. Open tires.
8. OUTLAW 250cc: This class is limited to drivers at least 14 years old.
9. OUTLAW 500cc: This class is limited to drivers at least 15 years old.

XIV. Annual Benefit Race:

Each December, the club hosts a non-points charity race at Sleepy Hollow. LKA has a long tradition of helping the community. During this event that we call our annual “Benefit Race,” LKA collects donations that are distributed to charities such as “Goodfellows” and “Toys-For-Tots.” Whether you are a member of LKA, an asphalt racer, a dirt racer, or simply a friend of LKA, we invite you to come and show your support for our community. LKA gladly accepts donations for our annual charity event year-round.

BRIGGS AND STRATTON “flathead” 5HP TECHNICAL SPECIFICATIONS ADDENDUM

Note – Due to the announcement by Briggs and Stratton that this engine and certain components are being phased out of production soon; the BNSS will be looking at suitable aftermarket replacement parts to approve on an ongoing basis. This will insure that those BNSS participants using the 5 hp flat head engine will not have to experience shortages and/or escalating costs.

General:

All components to be OEM Briggs & Stratton unless otherwise specified. Gaskets and fasteners non-tech unless otherwise specified. Gasket sealer on all machined surfaces acceptable. Ball and roller bearings shall be of metallic (magnetic steel) construction (excluding retainers) and be of conventional design. This includes inner and outer races as well as the balls and rollers. No other materials allowed.

Cylinder head requirements:

Machining permitted on the gasket mating surfaces and the top of the post bosses only. Welding on the cylinder head is prohibited. Heli-coil repair of spark plug threads in original position permitted, no protrusion into combustion chamber allowed. Bolt hole diameters .348" maximum. Combustion chamber depths: piston area .011" minimum, spark plug area .408" minimum, valve area .300" minimum. Head gasket material non-tech but must be stock configuration and .043" minimum thickness. Eight stock head bolts required.

Bore and Stroke:

2.613" maximum bore, 2.437 +/- .010" stroke. Protrusion of the piston above the top of the cylinder deck is .005" maximum parallel and in line with the wrist pin. *(See foot note)

Carburetor requirements:

Stock Briggs & Stratton 5hp carburetor only. Filter adapter (if utilized) top surface must be flat and .250" maximum thickness from mounting face. Inside diameter of adapter may be radiused .250" maximum. No more than one filter adapter gasket may be used, thickness .075" maximum. One or two carburetor mounting flange gaskets may be used. Swirl non-tech. Throttle shaft washer and rubber seal must be in place and stock configuration. Throttle shaft leading edge .040" minimum, trailing edge .086" maximum. Butterfly must be unaltered stock with .059" minimum thickness at throttle shaft mating location. Butterfly screw must be unaltered stock, .322" minimum length. Except for outside end, needle screw must be unaltered stock with o-ring and washer present. Jet must have stock recess on backside with no funneling of hole allowed. Main metering hole diameter .062" maximum. Idle hole diameter .028" maximum. Air horn diameter 1.011" maximum. Recess at flange end must be as cast, .726" maximum diameter. Carburetor bore, from flange end recess to intersection of air horn diameter, .695" maximum diameter – must be straight, no tapering, no attempts to modify fuel/air flow permitted (rifling, dimpling, protrusions etc. not permitted). Diaphragm cover plate may be faced for proper sealing. Aftermarket diaphragm of stock configuration permitted. Spring and cup must be unaltered stock.

Long fuel pickup tube may not be brass. Short tube inside diameter .066" maximum. Breather tube must be removed. Any stock, single hole, domed Briggs & Stratton fuel tank cap is permitted including those with integral splash shields.

Exhaust:

4 Cycle Exhaust Systems: The exhaust system must be of a fixed design and cannot be adjusted while the kart is in motion. (i.e. no slippy pipes) Length is non tech. System may consist of one to three pieces (header, connector tube and tail pipe) plus a silencer (if required). These components to be stainless or low carbon steel materials only. Exhaust pipe/header may not extend past rear bumper (including silencer, where applicable) Studs allowed to attach the header to cylinder head. Sealer and gaskets allowed and are non-tech. Silencer is required in stock classes (Briggs Flat Head, Animal, Clone, etc) the RLV Model B91/B-91XL (Pt# 4104) is the only approved model and must be ran stock with no modifications allowed regardless if they were by damage or intentional.

Valve train:

Stock, unaltered breather valve only. Two gaskets permitted. Grommet and internal foam must be in place. Stock, unaltered, single angle valves only. Length of flat from seating surface to end of valve .035" minimum. Intake valve angle 30° +/-1°, 1.115" minimum head diameter. Exhaust valve 45° +/- 1°, .990" minimum head diameter. Stock valve springs and lower retainers required. Springs may be machined to meet length requirements. Exhaust spring must be used on exhaust valve and may be used on intake valve. One stock upper retainer may be used on either valve, .058" maximum lip thickness. Intake valve spring length 1.240" maximum; .087" maximum wire diameter. Exhaust valve spring length 1.300 " minimum, 1.500 " maximum, .088 " minimum wire diameter; inside spring diameter .625 " minimum, .640 " maximum. Both upper valve chamber surfaces may be spot faced for valve spring stabilization. Depth and geometry of spot face non-tech. Stock, single angle valve seats required. Valve seat height to cam centerline 5.740" minimum, 5.775" maximum. Valve seat may not protrude above cylinder deck surface.

Ignition systems:

Stock, unaltered coil and coil air vane required. OEM plug wire only. Connector and plug boot non-tech. Resistance from spark plug wire to ground is 2,000 ohms minimum, 5,000 ohms maximum. Stock, unaltered 5hp flywheel required. Flywheel weight, 5 lbs 12 oz's minimum. Flywheel coating of any type is prohibited. Revolving or adjustable flywheel screens are prohibited. Flywheel key is optional and non-tech.

Piston requirements:

Approved Burris or Briggs pistons only permitted. Length from top of piston to top of wrist pin bore .925" minimum. (Decking of piston permitted to adjust pop up within the .925" min.) Wrist pin outside O.D. .491 " maximum, inside diameter .320 " maximum, length 1.720 " minimum.

Rings:

All three required. Must be stock appearing.

Connecting rod requirements:

Approved commercially available aluminum connecting rod is permitted. Length from bottom of wrist pin bore to top of crankshaft journal bore 3.1233 " minimum, 3.1333 " maximum. Connecting rod bolts and dipper are non-tech.

Crankshaft requirements:

Stock crankshaft required. Machining, polishing, addition of material or otherwise altering of counterweights is prohibited. Stock timing gear in stock configuration required. Connecting rod journal diameter .990" minimum, Crankshaft journals may be clearance to .775" minimum diameter to facilitate bearing removal. Thermal treatment of crankshaft is permitted.

Camshaft requirements:

Camshaft base circle is .770 "diameter maximum. Lifter material to be ferrous steel only. Lifter head diameter .982" minimum, 1.005" maximum, Length 1.606" maximum. Cam profile check must be taken with zero (0) valve lash.

Camshaft profile limits:

Lift /Exhaust degrees/ Intake degrees

0.050/38°BBDC to 33°BBDC/7°BTDC to 0°TDC

0.100/21°BBDC to 16°BBDC/10°ATDC to 17°ATDC

0.150/2°BBDC to 3°ABDC/29°ATDC to 36°ATDC

0.200/21°ABDC to 31°ABDC/55°ATDC to 64°ATDC

Max lift = 0.233 in.

0.200/76°BTDC to 65°BTDC/43°BBDC to 33°BBDC

0.150/48°BTDC to 40°BTDC/13°BBDC to 6°BBDC

0.100/28°BTDC to 21°BTDC/6°ABDC to 13°ABDC

0.050/10°BTDC to 4°BTDC/23°ABDC to 31°ABDC

- EZ Spin: start 45° to 60° ABDC
- EZ Spin lift base: .013" minimum, .019" maximum, 30° minimum duration, .001" maximum drop during duration.

Block requirements:

Side cover must be stock. Stub for governor may be removed and hole plugged. Gasket mounting surface of side cover and block may be pin punched. Block must be unaltered stock with the following exceptions. The lifter bores may be countersunk to provide lifter head fillet radius clearance. Any means to raise the bottom of the lifter bore boss is prohibited. Welding to the block shall be for damage repair or lifter bore reinforcement only and may not constitute a functional modification. The cylinder deck may be machined, but cannot extend into the rear fin. Carburetor and exhaust pipe mounting surfaces must be unaltered stock. Alterations to inside surfaces of intake and exhaust ports are allowed so long as the intake port will not accept an .880 " diameter No-Go plug gage and the exhaust port will not accept a 1.005 " diameter No-Go plug gage. No addition of material is allowed. No additional holes may exist in the intake and/or exhaust ports. No alterations on the underside of the valve seats are allowed. Cylinder sleeve, if present, shall be ferrous material and uncoated.

Briggs and Stratton LO 206 Engine Rules Addendum

The 206 engine platform is designed and engineered exclusively for racing.

This rule package has been prepared by Briggs and Stratton Racing and is intended to establish the basis for the technical control of the classes in which the LO 206 engine is specified. For ALL other regulations, general safety, etc. please refer to the LKA rulebook.

1. Briggs and Stratton Racing Class Structure

At this time, the LO 206 engine is eligible for competition in classes established at the Sleepy Hollow sprint track. If there are competitors who wish to use the LO 206 engine for speedway competition, they may do so at the race director's discretion as a "local option" class. Points and prizes will be awarded according to the existing minimum participation guidelines.

2. These Regulations are the Only Regulations

- a. Only the B&S Racing Department in Milwaukee can make changes to the technical specifications herein.
- b. B&S dealers and their agents are not authorized to alter, verbally or otherwise, any technical specifications or competition rule herein.
- c. Should any B&S literature, catalogues, manuals, videos, etc. be different than these regulations, these regulations take precedence.
- d. Changes, corrections, addendums, etc. will be submitted to sanctioning bodies and posted at www.karting.com for republication and will become effective on the date specified.

3. Briggs and Stratton LO 206 product availability

The LO 206 engine products and service parts are available only through the authorized Briggs and Stratton Racing dealers. A list of authorized dealers can be found at www.karting.com.

4. General Rules

- a. The terms stock, original equipment, OEM, unaltered, etc. refer to Original Equipment supplied by Briggs and Stratton.
- b. The only original equipment Briggs and Stratton LO 206 #124332-8201 engines are allowed in LKA LO 206 eligible classes.
- c. All parts must be unaltered Briggs and Stratton LO 206 parts specifically made for this engine by Briggs and Stratton. No aftermarket parts are to be used unless specified by these regulations.
- d. All parts are subject to comparison with a known stock part.
- e. For ALL other regulations, general safety, etc., refer to the LKA rulebook or an LKA officer.
- f. The tech official, at their sole discretion, may at any time replace a competitor's sealed engine, carburetor, or head assembly with another sealed engine or known stock part. Failure to comply is grounds for disqualification.
- g. Briggs and Stratton 206 classes must have a serialized block.

5. Things that are NOT permitted

- a. Tampering of the factory installed engine seals (2).
- b. Addition or subtraction of material in any form or manner.

Exception – Valve maintenance (valve job). Valve seals must remain factory specification with one 45 degree angle only. Multi-angle valve seats are not permitted. Grinding of valve stem or excessive material removal prohibited.

- c. “Blueprinting” unless stated herein
- d. Modification to or the machining of any parts in order to bring them to stated minimum/maximum specification, (or for any reason).
- e. Machining or alteration of any kind to the engine or replacement parts unless specifically stated herein.
- f. De-burring, machining, honing, grinding, polishing, sanding, media blasting, etc.
- g. Sandblasting or glass-beading any interior engine surfaces.
- h. No device may be used that will impede, or appear to impede, airflow to the engine cooling system.

6. Engine Sealing

There are two custom, Homeland Security Tier III rated seals installed at the factory. Tampering of the seals is not permitted. Should the seals be tampered with, the engine is no longer eligible for competition. Should an engine require dismantling for any reason that requires breaking of the seals, contact Briggs and Stratton.

7. Technical Inspection Tools

Briggs and Stratton have made available a number of tools for the convenience of technical checking of components when necessary. Tools are available through Sox Racing.

8. Engine Ignition Switch

The B&S ignition switch and wires must remain in stock location. It is not permitted to alter the OEM wiring.

9. Engine Air Filter

The only filter permitted is the Briggs and Stratton Green Air Filter Part # 555729. No modification to the filter element is permitted. A protective shield may be attached for wet weather competition. It is not permitted for the protective shield to create any ram-air effect.

10. Engine Fuel

Premium Gasoline no greater than 94 octane sold at normal roadside fuel stations open to the public. The addition of fuel additives in any manner is not permitted.

11. Engine Oil

High-quality synthetic oil within a 10W-20 range recommended. No oil additives are permitted.

12. Oil Breather

Oil breather must vent into a catch container.

13. Oil Catch Container

An oil overflow catch system is mandatory. Overflow tube must run from the crankcase breather to a catch container. The catch-container must be vented to atmosphere.

14. Carburetor Overflow

Carburetor overflow must be vented to a catch container.

15. Fuel Pump

It is recommended, but not mandatory, that Walbro fuel pump, B&S part number #557033 be used. Other pumps are permitted. It is prohibited to pulse from the intake manifold. The fuel pump must be pulsed from a pulse fitting mounted on the oil fill fitting located on

the engine side cover. Aftermarket one-piece filler/pulse fittings are permitted. A fuel filter is HIGHLY RECOMMENDED to insure that dirt and contamination within your fuel system does not impact your carburetors performance. This is not a tech item.

16. Cooling Shrouds, Covers, and Blower Housings

All pieces of the engine cooling shroud/blower housing and control panel must be stock B&S and properly installed. Engine shroud may be painted any color. Any bolt, with the exception of the head bolt, that is used to secure sheet metal shrouds and covers may be replaced with larger diameter bolts. No taping or covering of the rewind shroud is permitted.

17. Use of Helicoils

It is permitted to use Helicoil thread inserts for shrouds, valve cover, oil drain, oil fill holes, blower housing, and exhaust pipe attachment studs on the head and lower brackets.

18. Carburetor and Intake Manifold

The B&S stock Walbro PZ 22 carburetor part #555658 is the only carburetor permitted. No alterations allowed unless stated below. All parts will be compared to a stock known B&S part for eligibility. This includes the nozzle, emulsion tube, jets, float, float needle and all other carb parts. It will be allowed however to adjust the float height by means of bending the small tab on the float arm. Slide must be black and remain B&S stock unaltered. Slide cutaway to be measured on flat surface. 0.075" no go (tool A-10). B&S stock unaltered aluminum needle is required part number 555602 marked #BGB. Needle is to be inspected using tech tool A-4. Needle, when placed in tool A-4, should not protrude through the other side. If needle protrudes through the block, it is out of specification.

19. Cylinder head

- a. The only head casting for the B&S LO 206 herein is the "RT-1", cast into the head just off the head gasket surface (towards the rear of the engine, PTO side). The overall head minimum thickness is 2.430".
- b. Cylinder head must be "as-cast". Factory machining marks left on the head surface are a tech item.
- c. Hard Carbon may be scraped from the head before measuring.
- d. Depth of shallow area of the combustion chamber must be 0.030 inch minimum. This measurement is to be taken with a depth gage on both the combustion side and the spark plug side of the cylinder head.
- e. Depth at the floor of the combustion chamber is 0.340 inch minimum.
- f. Inspect retainers for alterations that would increase valve spring pressure – 0.055 to 0.075 maximum flange thickness. Both intake and exhaust must have OE stock B&S valve keepers.
- g. Unaltered B&S part #555552 (exhaust) and #555551 (intake) can be checked for appearance, weight, and dimensions.
No machining, polishing, easing, or titanium valves allowed.
Valve surface must be unaltered factory ground and have one 45 degree sealing surface only.
There will be no other angles ground on any part of the valve. (tool A-22)
- h. Valve Guides: Replacement of valve guides with B&S part #555645 only is allowed. Maximum depth from the head gasket surface to the intake valve guide is 1.255".

20. Head Gasket

- a. Unaltered B&S part #555723 is the only head gasket allowed.

- b. Minimum gasket thickness between head bolt holes is 0.049 inches. Measurements are to be made with a micrometer in four places between the head bolts, from the inside of the gasket.

21. Ports

- a. No de-burring, machining, honing, grinding, polishing, sanding, media blasting, etc.
- b. The transition from the intake bowl to port must have factory defined machining burr at this junction.
No addition or subtraction of material in any form or matter.
No alterations of any kind may be made to the intake or exhaust ports.
- c. Intake Port: Maximum diameter measurement = 0.918 inches max (tool A-6)
- d. Exhaust Port AS CAST: Exhaust outlet = 0.918 inches max (tool A-6)
- e. Valve Seats. Intake and Exhaust: Must remain factory specification with one 45 degree angle only. Multi-angle valve seats are not permitted.
- f. Intake valve seat diameter inside = 0.972 inches. (tool A-2)
- g. Intake port pocket bowl (area just below valve seat) – 0.952 no go. (tool A-2)
- h. Exhaust valve seat diameter inside = maximum 0.850 inches (tool A-1)

22. Valves

- a. Intake Valve

Minimum Weight of Valve	29.26 grams
Diameter of Valve Stem	0.246 to 0.247 inches
Diameter of Valve Head	1.055 to 1.065 inches (tool A-17)
Diameter of Valve Seat	0.972 inches ID maximum
Valve Length	3.3655 inches minimum
Height form angle of valve face to top of valve	0.057 inches minimum (tool A-26)

- b. Exhaust Valve

Minimum Weight of Valve	28.62 grams
Diameter of Valve Stem	0.246 to 0.247 inches
Diameter of Valve Head	0.935 to 0.945 inches (tool A-18)
Diameter of Valve Seat	0.850 inches ID maximum
Valve Length	3.3655 inches minimum
Height form angle of valve face to top of valve	0.060 inches minimum (tool A-27)

23. Valve Springs

- a. Valve Springs are single coil stock, unaltered B&S part #26826. Must be identical in appearance to factory part and have 4.25 to 4.75 coils in stack.
- b. Spring Wire Diameter: 0.103 to 0.107 inches.
- c. Valve Spring Length: 0.930 inches maximum (tool A-15)
- d. Inside Diameter: 0.615 to 0.635 inches.

24. Rocker Arms, Rocker Ball and Rocker Arm Studs

- a. Rocker arms must be unaltered stock B&S part #691230 (US) or #797443 (metric) and will not be altered in any way.
- b. Rocker studs must be stock, unaltered stock B&S part #694544 (US) or #797441 (metric) and in stock location.
- c. Rocker ball must be B&S stock. Diameter = 0.590 inch minimum to 0.610 inch maximum. (tool A-16)
- d. Rocker arm mounting positions may not be altered in any manner. No heli-coiling of mounting holes. No bending of studs.
- e. Rocker arm stud plate must be bolted to the head with one, OEM stock B&S gasket only – no alterations. Maximum thickness of gasket = 0.060 inches.

- f. Rocker arm – overall length = 2.865 inches minimum. (tool A-13)

25. Push Rods

- a. Push rods must be unaltered stock B&S part #555531.
- b. Push rod length = 5.638 inches minimum to 5.658 inches maximum. (tool A-5)
- c. Push rod diameter = 0.185 inches minimum to 0.190 inches maximum.

26. Engine Block

- a. Engine block must be unaltered “as cast” B&S factory machined condition. There must be no addition or subtractions of metal or any substance to the inside or outside of the cylinder block.
- b. Both (2) B&S engine seals must be present with both the fastener and seal in “as shipped” from the factory location and condition. Any defined tampering with the fasteners or damage to the wire/seal itself (example: delaminated hologram) are grounds for disqualification. It is recommended that you wrap your seals to prevent exposure to harsh solvents such as carb cleaners, etc.
- c. Deck gasket surface finish is not a tech item. Piston pop-up can be 0.005 inches maximum. Piston pop-up to be checked with a flat bar in the center of the piston parallel to the piston pin and then again checked 90 degrees to the piston pin. (tool A-25) Angle milling or peak decking is not allowed.
- d. Carbon build-up can be removed before pop-up is measured as long as material is not removed from the piston. Exception – Competitors can de-burr the manufacturing part number/marks IF needed as long as: 1. Removal does not extend beyond the defined script area. 2. De-burring does not extend below the original piston surface area. 3. The original part numbers and script are still clearly visible.
- e. Cylinder bore will not be bored oversize.
- f. Cylinder bore will not be re-sleeved.
- g. Cylinder bore position is not to be moved or angled in any manner.
- h. Cylinder bore dimension: Briggs and Stratton stock bore = 2.690 inches. Allowance for wear is permitted up to 2.693 inches maximum for entire length top to bottom.
- i. Maximum stroke = 2.204 inches. Push piston down to take up any rod play. Check stroke on BDC to TDC. (tool A-21)

27. Valve lift

- a. Maximum valve lift is checked from the top of the valve spring retainer. Valves must be adjusted to zero clearance.
- b. Valve Lift: Camshaft check is taken at the valve spring retainers. With the lash set to zero, the movement of the valve spring retainers may not exceed the following:
Intake and Exhaust: 0.255 inches maximum.

28. Camshaft Profile Limits (measured at the push rod)

Lift	Intake degrees	Exhaust degrees
0.006	59 to 49 BTDC	101 to 91 BBDC
0.020	16 to 12 BTDC	59 to 55 BBDC
0.050	0.5 to 4.5 ATDC	43 to 39 BBDC
0.100	17 to 21 ATDC	26 to 22 BBDC
0.150	33.5 to 37.5 ATDC	9 to 5 BBDC
0.175	43 to 47 ATDC	1 to 5 ABDC
0.200	54 to 58 ATDC	11.5 to 15.5 ABDC
0.225	68 to 72 ATDC	25 to 29 ABDC

MAX LIFT	0.257	0.259
MIN LIFT	0.252	0.252
0.225	38 to 34 BBDC	76 to 72 BTDC
0.200	24.5 to 20.5 BBDC	62.5 to 58.5 BTDC
0.175	14 to 10 BBDC	52 to 48 BTDC
0.150	4.5 to 0.5 BBDC	42 to 38 BTDC
0.100	12 to 16 ABDC	25.5 to 21.5 BTDC
0.050	29 to 33 ABDC	8.5 to 4.5 BTDC
0.020	45.5 to 49.5 ABDC	8 to 12 ATDC
0.006	81 to 91 ABDC	

29. Flywheel

- a. No modifications are allowed to the flywheel.
- b. The minimum weight of the flywheel, fins and attachment bolts is 4 pounds 1 ounce.
- c. Stock B&S part #555683 only. No machining, glass beading, sand blasting, painting or coating of flywheel is allowed.
- d. A flywheel fan, B&S part #692592, with broken fins must be replaced.
- e. Stock, unaltered B&S flywheel key with B&S logo is required. Width of the key allowed is 0.1825 inches to 0.1875 inches. No offset keyways allowed.

30. Ignition System

- a. Unaltered B&S stock ignition part #555718 is mandatory. Only "GREEN" ignition module is allowed. Maximum RPM = 6150.
- b. Coil or its position, other than air gap may not be altered in any way. Coil mounting bolts must be stock and cannot be altered in any way to advance or retard timing. Attachment bolts and/or bolt holes may not be altered.
- c. Spark Plug: Only the B&S unaltered factory spark plug part #555737 – Champion RC12YC is permitted. Spark plug must have the Champion and Briggs and Stratton logo as well as the RC12YC identification on the insulator. Sealing washer must be in place as from factory.
- d. Magneto air gap is non-tech (recommended clearance = 0.0140)
- e. Ignition Timing: Maximum of 30 degrees BTDC.
- f. Spark Plug Connector: Only the OEM B&S part #555714 is permitted.

31. Crankcase

Crankcase and cover must be B&S stock, unaltered, "as cast in factory" condition. No alterations or subtractions of metal or any other substance to crankcase cover.

32. Clutch

Stamped steel drum shoe type clutches only. Noram GE, Hilliard Extreme-Duty, Hilliard Flame, Hilliard Fire, Premier Magnum, Max Torque Box Stock Clone, Max Torque SS 6-Shoe, Hortsman Rhino.

33. Starter

Recoil starter, B&S part #695287, must be retained, as produced and intact. Starter may be rotated.

34. Header

- a. Header must be RLV Model 5507 or 5506 for all classes.
- b. Gasket and/or silicone are allowed to seal header to head. (one gasket maximum)

- c. Studs or bolts are permitted to fasten header to head. Bolts or nuts must be safety wired.
- d. Heli-coiling of the exhaust is allowed and recommended.
- e. Header support brace is mandatory.

35. Exhaust Silencer

Silencer must be RLV B91XL (part #4104) with round baffle holes only. Safety wiring of the silencer is recommended.

36. Exhaust protection

The exhaust header must be completely wrapped with a non-asbestos insulation material starting approximately 2 inches from the exhaust flange.

37. Torque Specifications Guidelines

Description	Wrench/Socket Size	Torque
Air Guard	7mm	40-50 lb-in
Blower Housing	10mm & 3/8"	60-110 lb-in
Carburetor (to manifold)	10mm	80-110 lb-in
Connecting Rod	T27	115-120 lb-in
Cylinder Head Bolts	10mm	200-220 lb-in
Exhaust Brace Screws	10mm	95-125 lb-in
Exhaust Stud	10mm	95-125 lb-in
Flywheel Nut	15/16"	55-75 ft-lbs
Flywheel Fan	10mm	180-240 lb-in
Intake (to cylinder)	5mm Allen	70-90 lb-in
Oil Drain Plug	3/8"	100-125 lb-in
PVL (ignition) module	7mm	20-35 lb-in
Rocker Arm Stud	7/16"	90-120 lb-in
Rocker Arm Plate	10mm	70-90 lb-in
Rocker Arm Set Screw	1/8" Allen	50-70 lb-in
Spark Plug	5/8" deep	95-145 lb-in
Side Cover	10mm	95-125 lb-in
Starter Gear	#2 Phillips	35-53 lb-in
Top Control Plate	10mm	70-90 lb-in
Valve Cover	10mm lower & 3/8"	30-60 lb-in

38. Technical Inspection Tools

The following tool list is for reference only. These tools are not necessarily required. They only speed the technical inspection process.

A-1	Exhaust Valve Seat		A-15	Valve Spring
A-2	Intake Valve Seat		A-16	Rocker Ball
A-4	Needle Jet		A-17	Intake Valve Head
A-5	Push Rods		A-18	Exhaust Valve Head
A-6	Intake Inlet/Exhaust Outlet		A-20	Venturi Measurement
A-7	Throttle/Choke Bores		A-21	Stroke
A-8	Venturi Measurement		A-22	Valve Angle
A-9	Air Pick-off Hole		A-25	Piston Pop-out
A-10	Slide Cutaway		A-26	Intake Valve
A-11	Intake Manifold		A-27	Exhaust Valve
A-12	Intake Manifold		A-30	Combustion Chamber
A-13	Rocker Arm			

39. Online support can be accessed at www.Briggsracing.com.

CLONE "BOX STOCK" MOTOR RULES ADDENDUM

1. Approved engines – OHV engines generally referred to as Clones (Honda GX200 copies) with a maximum displacement of 196 cc's. (Current legal engines include the Lifan, Grey Hound, Harbor Freight Blue, Yellow, Jaing Dong, Yamakoyo, Blue Max, Dupor, Ducar, etc.)
2. Engine Components: Must be original OEM items in their stock state unless otherwise specified. Removal of unnecessary OEM items such as exhaust system, air cleaner, fuel tank, governor, low oil sensor, etc is permitted. Welding or epoxy repair permitted to the block, head and side cover provided they don't enhance performance.
3. Exhaust System: Silencer required. Pipe may be wrapped (recommended).
4. Carburetor: Huayi/Ruixing type carb only. Choke assembly must be in place and functional. Venturi .615" max and throttle bore .751" max. Throttle shaft is .115" min dia. Butterfly is .037 min thickness. Metering jets/orifices are non-tech. (Since the amount of air flow through throttle bore & venturi is limited and fuel type is controlled, teching the jet size is unnecessary) Filter adapter and filter non tech. Any pulse type fuel pump permitted and can be pulsed from the crankcase, side cover or valve cover.
5. Fuel Tank: Non Tech. (It is recommended that for safety reasons a remote/floor mounted tanks be used.)
6. Fuel: 87 octane pump gas only.
7. Clutch: Stamped steel drum shoe type clutches only. Noram GE, Hilliard Furry, Flame, Fire, Premier Magnum, Max Torque Box Stock Clone, Max Torque SS 6-Shoe, Hortsman Rhino.
9. Connecting Rods: OEM type cast rods only. No modifications, other than clearancing, allowed. (Clearancing methods like honing, boring, etc are non tech.) Reference rod length dimensions are 3.307" +/- .010" center to center (2.362" from wrist pin bore to crank pin bore.). Crank pin bore 1.182" +/- .005" and wrist pin bore is .709" +/- .005".
10. Pistons: OEM type Std bore (2.685" max) only. Three ring design and all rings to be intact and functional.
11. Crankshaft: Standard OEM item with stock stroke length of 2.126" (54mm) plus or minus .005". No alterations permitted.
12. Flywheel and Ignition Coil: Only billet flywheels and stock (OEM) plastic fins allowed. (no machining allowed) Plastic fins must be intact and have their full depth. Flywheels have become a safety concern for some of the major sanctioning bodies. As of 12/01/2012, AKRA and WKA have outlawed the OEM cast flywheel. LKA shall allow flywheels approved for use by AKRA in stock class competition. Timing is non-tech. Flywheel key may be altered and is non tech but must be installed. (Due to the variations of the OEM keys and keyways they will be non tech to allow optimum timing with a minimum of cost.)

CURRENT APPROVED FLYWHEELS:

- a. OEM stock cast iron (unaltered, with stock plastic fins intact) (5lb 4oz)
- b. ARC billet aluminum Model: 6619
- c. ARC billet aluminum with steel hub Model: 6618
- d. Raceseng Model: S1
- e. Raceseng Model: S2
- f. BSP steel
- g. Speed Parts Inc. billet steel Model: DJ-168F-16200-A
- h. Dyno Cams Inc. billet steel Model: BS-PVL-FW/PVL # 211 900

13. Cylinder Head: OEM heads only with no modifications allowed. Valve seats to be a single 45° only with a top angle relief of 30°. No porting, grinding or matching allowed to the ports or combustion chamber. Spark plug to be 14mm X .75 reach only. Minimum combustion chamber volume when mounted on engine @ TDC is 26.5 cc's using prescribed procedure. This is to be done after the event and when the engine has cooled down to a reasonable temperature. Note - Head gasket required, but thickness is non-tech and can be either steel or aluminum. Spec on thickness is non-tech to allow competitors to alter chamber volume to achieve the 26.5 cc minimum which some engines fall short of from the factory.

Combustion chamber volume testing procedure:

- a. Fill a 50cc burette with Marvel Mystery Oil. Care must be taken to allow trapped air bubbles to escape. Flush the air from the stopcock and outlet.
 - b. Install the combustion chamber measuring plug and torque to 90 in. lbs. Make sure the measuring plug hole is in a near vertical position to allow air to escape the chamber. Roll the piston to approximately 0.100 in. before top dead center. Note: the chamber plug can be purchased from many kart supply retailers (it is the same plug used for the Yamaha KT100 tech procedure).
 - c. Fill the combustion chamber with the designated amount of Marvel Mystery Oil from the burette (26.5cc).
 - d. SLOWLY roll the piston up through top dead center. If any oil escapes the top of the chamber plug, the engine is illegal.
14. Valve Train: OEM push rods, push rod guide plates, retainers, springs, keepers, rocker arms and adjusters only. OEM valves with 45° seat angle only and must be stock appearing and no lightening or polishing allowed. Intake diameter is .979"/.989" and exhaust diameter is .939"/.949". Stock 1:1 (nominal) ratio OEM rocker arms only. OEM valve springs only with a maximum spring diameter of .798" (wire diameter .071" max) and a maximum tension of 10.8 lbs at .850" compressed height.
- 13.1 The installed height of the valve spring must not be less than .815". Shims, and valve stem seals can be used to obtain the .815" dimension and are to be included in the measurement. (Valve stem seals are optional and can be used on either or both the intake and exhaust.)
- 13.2 (Note-if a competitor is suspected of using illegal valve springs a quick field check can be performed using an inexpensive fish scale. Hook the scale under the

rocker arm next to the push rod and lift until the valve opens and note the reading on the scale. If the springs appear to be much over the 10.8 lbs @ .850" spec then the springs can be removed from the head for a proper check.)

15. Camshaft: Stock appearing camshaft cores only with the ez-spin assembly un-altered and in stock condition.
 - 15.1 Cam lobe base circle diameter min/max is .860" - .875".
- 14.2 Duration for intake and exhaust lobes taken at the valve retainer. Intake duration of 217/221 degrees at .050 lift and 84/88 degrees at .200 lift. Exhaust duration of 220/224 degrees at .050" lift and 95/99 degrees at .200" lift (The +/- 2 degree range allows for wear and engine/gauging variations).
- 14.3 Max intake lift is .240". Max exhaust lift is .245". Readings are taken with a dial indicator on the valve spring retainer with zero lash.
16. Fasteners: Non-tech, but must retain their original factory size. Heli-coils, studs, etc allowed for repair purposes.
17. Gaskets & Sealer: Gaskets are non-tech and sealer may be applied unless otherwise specified.
18. Bearings: Crankshaft bearings shall be of metallic (magnetic steel) construction (excluding retainers) and be of conventional design and stock appearing and the same dimensions as the OEM bearings. This includes inner and outer races as well as the balls and rollers. No other materials allowed.
19. Coatings: Internal performance coatings of any type not allowed.
20. Crankcase breathers are to be routed internally through the valve cover as originally intended in OEM configuration. No additional breathers allowed.
21. Tires: See track/class section for specific requirements.
21. Pull Starter: The pull starter is non tech and optional.