

The rules that we have changed are highlighted in TUROUISE.

Sunset Speedway Rule Book

and

2009 Schedule

The rules that we have changed are highlighted in TURQUOISE.

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SUNSET SPEEDWAY CONTACTS

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BOARD OF DIRECTORS	
Ed Nereaux JR I Rep	NRXracing@aol.com
Todd Havens JR II Rep	
Bill Pickens Adult Rep	
SUNSET SPEEDWAY ADDRESS AND WEB SITE	
Sunset Speedway P. O. Box 1113 Spokane, WA 99211	www.sunsetsspeedway.org

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**Sunset Speedway
Presented By Digatron
1/5-Mile Clay Oval
Spokane Motorsports Complex, Airway Heights, WA.
5 miles west of Spokane
West of Northern Quest Casino and Spokane Raceway Park**

2009 RACE SCHEDULE

Gates open at 2:00

Date	Day	Race #	Practice	Qualifying	Racing	
April 11	Saturday	Practice/ fun day	10am			No points Fun day
April 18	Saturday	1	4pm	5pm	6pm	
May 2	Saturday	2	4pm	5pm	6pm	
May 16	Saturday	3	4pm	5pm	6pm	
May 30	Saturday	4	4pm	5pm	6pm	
June 13	Saturday	5	4pm	5pm	6pm	
June 27	Saturday	6	4pm	5pm	6pm	Double points
July 11	Saturday	7	4pm	5pm	6pm	
July 25	Saturday	8	4pm	5pm	6pm	
Aug 8	Saturday	9	4pm	5pm	6pm	
Aug 22	Saturday	10	4pm	5pm	6pm	
Aug 29	Saturday	11	4pm	5pm	6pm	Double points
Sept 12	Saturday	Promotional play day	12pm	1pm	2pm	No points play day

If a race is rained out, we will try to make it up the next day, if possible.

Practice to be determined

The racing banquet will be Sat. October 24.

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2009

APRIL

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

MAY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

JUNE

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

JULY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

AUGUST

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

SEPTEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

HOLIDAYS

RACE DAYS

DOUBLE PTS

PRACTICE

CLEAN UP

PLAY DAY

MOM/DAD

MECHANIC

FRIENDS

**RACES
ETC.**

**BANQUET WILL BE ON OCT.
24TH**

2009 SUNSET SPEEDWAY FEES

Sunset Driver Entry Fees:

Member: \$30.00 (includes pit pass) (2nd class \$20.00)

* Member Season Pass: \$270.00 (includes pit pass)

Non-member: \$50.00 (includes pit pass)

* Member season passes are not refundable or transferable (not good for play day)

* You must be a member to get a drivers season pass

* Non-members will not receive awards or points

Sunset Pit Pass Entry Fees:

16 and over: \$10.00

Jr. Pass: \$5.00 (5-15)

Kids free (under 5)

**Season Pass: \$90.00

Family Pass: \$25.00 (2-adults and 2 kids 15 and under)

** Pit season passes may be used by anyone, up to 11 times per pass

*NOTE: We welcome anyone who would like to come into the pits.

Sunset Membership Fees:

1st driver \$100, other drivers (same family, same household) \$50

Non-drivers: \$25.00

Practice Day Fees:

Driver: \$10.00

Non-Drivers: \$5.00

Play Day Fees:

Pit passes will be \$5.00 for everyone!

This day is for new people to come out and drive a kart to see if they would like to start racing. We also will have a bunch of fun races for everyone.

THE SPECTATOR AREA IS ALWAYS FREE!

Each minor member racer must have a parent or guardian that is a member of Sunset Speedway.

SCORING

A Main Event	
Finish	Points
1	100
2	96
3	92
4	88
5	84
6	82
7	80
8	78
9	76
10	74
11	72
12	70
13	68
14	66
15	64
16	62

Heat Races	
Finish	Points
1	8
2	7
3	6
4	5
5	4
6	3
7	2
8	1
9	1
10	1
11	1

B Main Event	
1	60
2	58
3	56
4	54
5	52
6	50
7	48
8	46
9	44
10	42
11	40

Fast time is awarded five points.

Fast time points will not be awarded on race events where pea picking is required.

Qualifying: 1 lap
Trophy dashes: 4 laps
Heat races: 10 laps
Main events:
A main: 15 laps
B main: 10 laps

GENERAL RULES FOR SUNSET SPEEDWAY

2009 RULES

1. Drivers must register and have their kart inspected before participation is allowed. Only registered drivers are allowed on the track. All drivers under the age of 18 must have a waiver signed by a parent or guardian and such signature must be notarized, if not signed at registration.
2. All persons entering the pit area must have a pit pass. After practice begins, if a person is found in a particular pit without a pit pass, the driver(s) of that pit may be disqualified.
3. Drip pans are mandatory. Anyone caught dumping petroleum fluids on the ground will be disqualified for that race day. Waste oil barrel is supplied in the pits by the scale house.
4. On any race day classes with three or less entries may be combined with another class at the Board's option. The slower class will line up in their regular order behind the faster class. To constitute a class, a minimum of four members must be present to race in said class. Once a class has been recognized for the race season, it shall remain a valid class for the remainder of the season, as long as there remains a reasonably consistent turn out of at karts, at the Board's discretion. **Trophies will go to the top 3 in each main event.**
5. Pregnant women are not allowed to compete. This restriction applies at any time including practice, family days, tests, qualifying, and competition.
6. There will be one throw out race each season. This will be the lowest points race or his/her zero if a race is missed. If you are protested and choose not to tear down, that will become a DQ. A DQ will be counted as a DQ and will not be used for the throw out race or a zero.
7. "Sunset Speedway" is implied whenever the words Board, event, or a location is referred to in this document.
8. All areas that require you to sign in to will be implied to as the "pit area."
9. The Board members who are present at the time will make any decision that must be made at the track.
10. Sunset Speedway is a private, not-for-profit organization and reserve the right to deny the issuance of membership, or to revoke any membership previously issued, for any reason or no reason, except that it will not deny or revoke a membership on the basis of race, creed, color, sex, or national origin.
11. The Board, as necessary for competition and/or safety, may update these rules throughout the season.
12. **Garbage is to be "pack it in-pack it out." If you leave it behind, you will get one warning. For the next occurrence after the first warning, you will receive a \$10.00 fine. Then it will be a \$20.00 fine. Fines will be paid prior to your next entrance into the pits. If it happens any more after that then you will get a DQ for each occurrence from that point on, as well as the \$20.00 fines.**
13. **If you have a problem or complaint, please go to your assigned class rep and that person will bring your concerns to the Board. In the event of an urgent matter, such as a wrong line up during a race event, you may approach the pit boss and/or person in charge of the grid.**
14. **You must race a minimum of 50% of the race days in a class to get any banquet awards.**
15. **No street cars will be allowed in the pit area. Only kart tow vehicles may enter in the pits. The pit gate will be locked at the start of qualifying. At that point, a walk through gate will be available for entry into the pits as time allows.**
16. **Everyone in the pits must attend the pit meeting and wristbands will be checked upon reentry.**

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17. Non-members will not be scored or receive awards. Anyone that finishes behind a non-member will move up a position. Non-members are required to tech and weigh in just as a member would.
18. Sunset Speedway is a gasoline fuel only track. Methanol fuel is not permitted for any class at any time.

DRIVER AGE AND CLASSES

1. Sunset Speedway has classes that are limited to drivers in given age groups.

Drivers Age:

Jr. I: Age 5-11 by the start of the race season

Optional Jr. I or Jr. II: Age 12 during the race season. You cannot be 12 before the start of the season.

Jr. II: Age 12-15 by the start of the race season

Optional Jr. II or Adult: Age 16 during the race season. You cannot be 16 before the start of the season.

Adult: Age 16 & up by the start of the race season

*A child may start racing at any time during the race season when he/she turns five.

Race Season: The race season is considered from the date of the season opener race to the date of the season championship race.

Optional Year: In the optional year when during the race season a driver's age changes from one age group to another, the driver may race in either age group. The option year is designed to give the junior drivers flexibility of class due to variances in driver weight and driving ability. Once the driver moves to the higher age group, he/she can no longer race in the lower age group. During the race season if a driver moves up any points they have earned in the lower class do not move up with them. Once you move up you are removed in everyway from the lower class.

When signing in, a driver can only run in the class that he/she registered in for at the pit gate. If there are not enough karts to run a class, that class may move up for the day at the Boards discretion.

Any driver who falsifies his/her age to compete illegally is subject to suspension.

CLASS WEIGHTS

Jr I:	275 lbs
Jr II:	375 lbs
Adult:	
Box Stock:	375 lbs
F200:	375 lbs
National Limited:	410 lbs

**NOTE: Weights may be changed if the Board decides a change is needed to make everyone equally competitive.

SAFETY

2. FIRE SAFETY

Entrant Fire Extinguisher: It is mandatory that each entry in the event have a minimum of one operable 1 ½-pound dry powder fire extinguisher rated for use on A, B & C type fires. Carbon Dioxide type extinguishers are not an acceptable substitute for the dry powder type. Each pit must have a functional fire extinguisher readily available and in plain view.

Track Fuel Handling Areas: Wherever fuel is handled, i.e. pump-around, fuel test area, etc., it is the responsibility of the Board to comply with local ordinances regarding fire safety.

3. DRIVER PROTECTIVE CLOTHING

Helmets: Effective January 1, 2005 all helmets used at Sunset Speedway events must meet one of the following standards: Snell M2000, Snell SA 2000, SFI 31.2, SFI 41.2 or newer standards of the same type as they become available.

Youth Helmets: Helmets for the drivers under the age of 12 must meet one of the above standards of the SFI 24.1 standard for youth helmets.

Eye Protection: All helmets must provide full-face coverage with integral face shield/visor. Wearing goggles is acceptable in place of the shield/visor.

All open kart drivers shall wear: Jackets of heavyweight leather, heavyweight vinyl material or approved heavyweight abrasion resistant nylon material or equivalent and full-length pants to prevent or minimize abrasions or driving suits of one or two piece design constructed of heavyweight leather, heavyweight vinyl material or approved heavyweight abrasion resistant vinyl material. CIK homologated karting suits are acceptable. Suits of Nomex only or proban material are not acceptable. Fire resistant suits are not adequately abrasion resistant.

Contained Karts: These cannot race with open karts for safety reasons.

Footwear: Drivers must wear a high top shoe/boot that covers the ankle, be laced or secured as shoe manufacturer designed.

Gloves: Racing gloves are required at all times on the track.

Neck Collars: Use of racing neck collars including foam inserts is mandatory at all events. This applies any time a driver is on the track and all classes. (Practice, qualifying, and racing)

Chest Protectors: All drivers in Beginners, Jr. I and Jr. II classes are required to present for pre race tech inspection, a chest protection device with a Section 20.1 SFI certification. This is for any driver under the age of 16 years old. If a driver is under 16 and running in the Adult class, they will still be required to wear the chest protector. This device must be worn whenever such drivers are on the track in their kart. The pit boss is empowered to prevent a driver from entering the track without this device, just as they would a driver without a helmet, neck collar, jacket, or gloves.

Long Hair: Long hair will be a safety tech item. Competitors with long hair will have to demonstrate a satisfactory method for constraining their hair. Simply tucking hair into driving suit is not acceptable.

Rib Braces: The use of rib brace is recommended.

Ear Plugs: The use of earplugs by participants, both drivers and pit crews is strongly recommended.

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PRE-RACE TECHNICAL INSPECTION

4. **PRE-RACE INSPECTION:** This is primarily for the purpose of checking for safety aspects of the kart and approval at pre-race inspection shall not guarantee legality at post-race inspection and tear down. All pre-tech items must be able to pass the same inspection after the race.

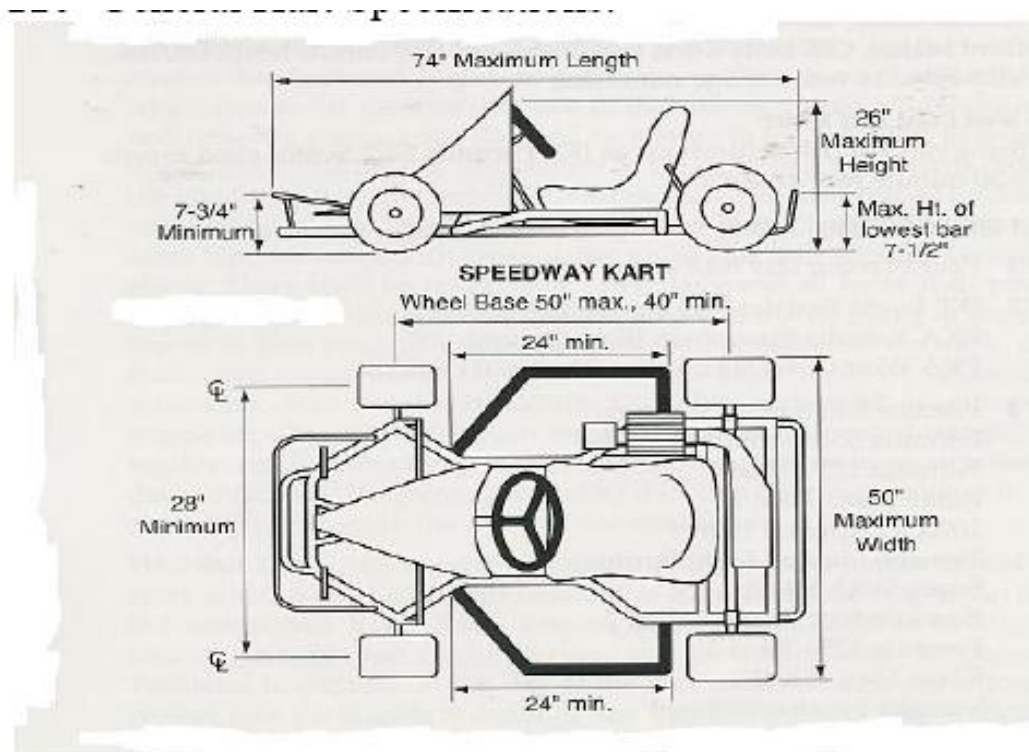
Pre-Race Inspection – Also Called Pre-Tech: All entrants shall present their kart race ready, helmets, jacket or suit, gloves and neck collar, chest protector (if required) for inspection before driving onto the track at all events. No entrant shall enter the track until his equipment has been approved by the Pre-Tech Inspectors and appropriate marking has been made on the kart and is visible to the pit boss.

Suitability for Competition: The basic design of the vehicle shall be suitable for high performance with emphasis on safety. No projection from the vehicle that constitutes a hazard to other vehicles or drivers shall be permitted. Axles, axle nuts, and safety fastening pins may not protrude past the outside of wheel. Use of castle type nuts is suggested.

Steering, throttle, and brake systems shall be checked for proper operation, stopping ability and safety wire, cotter pins or pinch lock nut.

Numbers are to be located on both sides, **the right front above the tire**, and on a rear number plate and are to be a minimum of 6" high in a contrasting color to the bodywork at the scorekeeper's discretion.

CHASSIS SPECIFICATIONS



5. KART CHASSIS GENERAL KART SPECIFICATIONS:

Tires: Sunset Speedway is a Burriss only track. This means all karts must use Burriss 5" or 6" slicks or treaded tires only.

Wheels: Void of any defects.

Wheel Bearings: Ground ball or roller type only.

Hubs: Nuts securing front or rear wheel hubs shall be secured by safety wire, cotter key, circlip, or snap ring.

Brakes: All parts of the brake system must be racing quality. The entire brake system must be safety wired, cotter pinned or secured by circlip or snap ring. Brakes can be hydraulic or manual. Any cable used as an actuator in a brake system shall have a minimum diameter of .071." Cable actuated hydraulic systems shall have two separate such cables. Brake rotor guard must be used between the seat and the rotor. The brake system must be safe.

Wheel Weight: Tape-on wheel balancing weights shall be securely fastened. Clip on type weights are not allowed. Maximum weight of any one weight shall be 1/4 ounce.

Throttle: Karts shall be equipped with a minimum of two return springs, which shall close throttle when pedal is released.

Fuel Tanks: All tanks shall be securely affixed to kart.

Fuel Lines: Shall be safety wrapped at all connections.

Exhaust: Must be safety wired.

Chain Guard: Every kart shall have a chain guard sufficient to deflect a broken chain toward the ground and away from the driver. The distance between the seat and the guard cannot exceed a maximum distance of 3/4".

Steering: Only race quality rod ends may be used. No stamped rod ends. All steering components must be safety wired or cotter pinned.

Frame: Shall be of safe design, void of defects that would impair the safety of the kart. Particular attention should be given to all welds.

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Bumpers: Bumpers shall not constitute a hazard to other competitors. Bumper shall adequately extend on each side to cover a minimum of center to center of the rear tires, but not beyond the maximum width of bodywork.

Bodywork: Must present no hazard to competitors, be constructed of composite fiberglass or plastic and are subject to approval from the Board. A nose and two side panels are required, as well as front and rear tube bumpers. In the event of a crash, a driver may finish the day's event without a body part at the Board's discretion.

Steering Wheel Fairing: Driver must be able to either see over the fairing while sitting in seat or through the fairing if made of clear plastic. Between the steering wheel and the fairing, there must be a minimum of 3" of clearance.

Ballast: All ballast shall be securely bolted to the kart, safety wired and painted white.

ON THE TRACK

6. DRIVING ON TRACK:

Good Sportsmanship: It is the spirit and intent of these rules that all competitors drive exhibiting good sportsmanship; this is, every driver is expected to behave according to principles of fairness, observe all rules, show respect for others, proceed on track without touching or endangering the vehicles of fellow competitors and accept victory or defeat graciously. However, inadvertent, occasional contact between karts on track is a reality of racing. **Because Sunset Speedway has a no contact rule, the flagman has the discretion whether or not a kart may continue in any race.** Any penalties assessed by the flagman while karts are on track are not protestable.

Track Entry: No kart will be allowed to enter the track after the green flag is waved. No motor may be restarted after the green flag has been waved, except for under a red flag condition. Under special conditions, the Board may decide to call a specific circumstance a red flag. In order for a kart to be restarted under a red flag condition, it must have completed the last green flag lap. Every attempt will be made by the pit boss to ensure that everyone is lined up before sending out the field. Under special circumstances, the pit boss may change the order of events. After the green flag, any kart that enters the pits cannot go back onto the track for that race.

Qualifying: Qualifying is one lap. Anyone that spins out after the green flag will receive the checkered flag when they come around, that lap counts as your qualifying lap. Anyone that spins out before the green will continue around the track and will receive the green when they get to the start/finish line. If the driver pulls off without any damage, he/she will not get a time, and will have to start at the back of all the heat races for the day. If there is a problem with the clock, the driver will go to the pits and fall in line at the back of his/her class to qualify. In the event of a tie, the first kart to qualify will get the faster position.

Heat races: Heat races will not exceed 11 karts. At 12 karts, they will be divided into two heats. The heat races will run on an odd/even line up. The slow or B heat will be the odd numbered or inside row of karts. The fast or A heat will be the even numbered or outside row of karts. In the event of the total number of karts being an odd amount, the fast time kart will be considered an odd numbered kart. The first heat race will be run straight up (slowest kart on the pole); the second heat race will be run with an inverted start (fastest kart on the pole).

A Main Events: The main will start 16 karts with the top 6 in points from the combined heat races locked in. If there are three heats then the top four are locked in. The top four from the B Main can move up and start behind the first 12, in the order that they finished the B main. The main line up will be set by the points combined from the two heats with the least amount of points being on the pole. In the event of a tie, the kart with the faster time will be put in line after the other kart.

B Main Event: If a driver moves up to the A main he/she will not get any points for the B main. For the purpose of receiving point only, when a driver advances to the A main, the rest of drivers will move up a position in the B main. Only the first four spots have the option of moving up to the A main.

Rookies: Any driver that has not raced at Sunset Speedway before will be considered a rookie. All rookies and any driver moving up from the beginners class will start all races for the first three event days at the back of the field. A yellow strip must be on the rear of their kart for those three days.

Changing karts: After qualifying, a driver may change to another kart that is legal for his/her class. Any driver changing karts must have their number on the kart they are driving. If a kart change is made, the driver will start at the back of the field for all remaining events that day.

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Practice: Rules, regulations and procedures for competition shall apply to all practice sessions. Extreme caution should be used on practice days due to the mixing of classes.

Starts: At the original start of a race, we will have a cone on the track coming out of turn four; you MUST go to the outside of the cone when coming for the green flag. If you do not begin the race by going to the outside of the cone, the race will be restarted. For this first offense, you will be moved to the back of the line up on the restart. On the second offense of any race day, you will be black-flagged from the race that it occurs in. Utmost caution should be observed during all starts. Remain calm and alert, as all karts will be running closely grouped. Avoid sudden changes in direction and if evasive action is necessary, check first to make sure your intended course is clear. If the start of the race is waved off two times because of either and/or both karts in the front row, the front row will be moved to the back of the field.

Competition: Remain alert. Give consideration to fellow competitors in all areas of safety.

Overtaking: When two or more karts enter a corner simultaneously, all karts should maintain a constant line through the corner and avoid erratic changes in direction.

Re-entering the track: A driver who has gone off the racing surface may re-enter the racetrack only if operating under his/her own power. A re-entering driver will enter the track as far off the racing line as possible allowing all competing karts sufficient room to avoid any possibility of contact with the re-entering kart. A driver must re-enter the track only at a point that will provide no advantage in time, distance, or position relative to competing karts. Any penalty assessed for gaining advantage is at the discretion of the flagman whose decision is not protestable.

Disabled karts: Any driver unable to continue because of mechanical failure or lack of fuel after the green flag must move his kart well off the track into a safe location as soon as safe conditions permit. Do not leave kart adjacent to the track at any time. Await the conclusion of the race before attempting to move the kart back to the pit.

Signaling: Drivers shall raise one arm over their head to signal that they are exiting the track, slowing, or that have a mechanical problem.

Scratched Entries: Whenever an entry is scratched before the karts enter the track, the class will be relined up as if that kart was never there. If an entry is scratched after the karts enter the track, the line up shall be reformed by karts moving straight forward.

Race Weigh-In: All Drivers shall be weighed with their karts as they pull up to the grid to qualify and immediately after they complete a heat or main event. Drivers may NOT go to their pit area. Going to your pit or not making weight is grounds for disqualification from that event.

Fuel: Sunset Speedway is a gasoline fuel only track. No methanol will be allowed at all at any time.

Post Race Inspection: At the end of the main after being weighed, the winning driver will draw a number that will signify which of the top three karts will go directly to the Tech area. Tech may be waived, at the Board's discretion, along with the top three drivers' unanimous consent in any or all classes. During Tech if an obvious illegal part is found on the way to or while checking the item to be teched, then Tech is stopped and the driver is declared illegal.

Radios: No driver may carry or have on his/her kart any radios or other electronic communication devices while on track. A driver can use no musical devices of any kind while on the track.

End Of The Year Points: In the event of a tie in points at the end of the season, the driver with the most main event wins will receive the higher finishing position. In the event the two drivers have tied on main event wins, then it will go to the driver with the most second place finishes, etc. until the tie is broken.

PENALTIES

7. At Sunset Speedway events, a positive effort should be made to prevent rough driving and to punish the offender when it does occur.

Protest. Any driver or owner desiring to protest another competitor's engine in their class may file \$75.00 in cash with the protest in writing to the Board within 15 minutes of the completion of their class's last race and can remain anonymous. The driver named in the protest will have his/her engine checked to determine legality. The protested driver will be paid \$50.00 if the engine is found to be legal and \$25.00 will be paid to the Tech person. If the protested driver is found illegal, then \$50.00 is returned to protester and \$25.00 will be paid to the Tech person. If the protested driver refuses to be checked, the protester will get his/her \$75.00 back.

Participants Conduct: A participant is any person, official, driver, crewmember, or interested bystander who has signed a release and purchased an insurance pass to be in the pit area, or who is attending any event. These participants should, at all times, conduct themselves in a manner that is not careless, reckless, or dangerous. Drivers are responsible for the control and conduct of their pit crewmembers. **Verbal and/or physical violence of any kind will not be tolerated. On the first offense, you and the kart and/or family will be immediately ejected and the racer will receive a DQ for that day's events and cannot be used as a throw out race. If a second occurrence happens, you will be banned for the rest of the season.** No participant shall enter the pit area under the influence of any substance that may impair his/her ability to be safe. Any of these acts of conduct may, at the Board's discretion; result in immediate ejection from the site, and possible probation or suspension of membership.

Penalty Powers of the Board: The Board may impose any of the following penalties for driver or crewmember infractions at any event. Penalties are not necessarily progressive, that is, any penalty may be assessed for a first offence if considered serious enough by the Board. The Board may disqualify a driver from a race, or from racing the remainder of the day for rough driving, rule infractions, offensive behavior, abusive language, or failure to follow the Board's directions.

- **Verbal Warning:** Note-Verbal warnings given to junior class drivers shall be made in the presence of a parent or legal guardian.
- Disqualification for the day or the event in case of multi-day event. Event disqualification shall not be retroactive to a previous day.
- **Probation:** A participant may be placed on probation for the remainder of the season and shall be recorded in the Minutes of the Board meetings.
- **Suspensions:** The power of suspension from Sunset Speedway or revocation of driver's privileges shall rest solely on the Board. A participant may be placed on suspension for a remainder of the season and shall be recorded in the Minutes of the Board meetings. *Participants suspended from Sunset Speedway shall not be allowed to be present in the pit area, or to take part in meetings, vote in elections, or hold committee or Coordinator appointments.* At the end of the suspension period, the participant shall be readmitted to active participation. Suspended participants holding Sunset Speedway appointments will not automatically resume those appointments.

Consequences of Disqualification: Any driver who is disqualified from qualifying, heat race or main event, shall be awarded no points for that portion of the event and lose any awards for that event. The Board may disqualify him/her for the entire race day. **If you are black flagged or do not start in a heat you will receive no points for that race, that would automatically have you starting up front in the main, therefore in that situation you will be moved back to start at the back of the main. This does not apply to a mechanical black flag.**

The rules that we have changed are highlighted in TURQUOISE.

Disqualification or **reduction in points** for the day and loss of awards will result if illegal fuel, equipment, engine, or any other violation is found during inspection **at any point in the day**. If at weigh in the minimum weight is not met, you will be disqualified for that race only.

FLAGS AND THEIR MEANINGS

8. FLAGS:

Green Flag: Start – course is clear.

White Flag: One lap to go in the race. Once the white flag is displayed the race is over. In the event that the yellow comes out after the white flag the race will revert back to the last complete green flag lap. Except for those that are involved in the yellow coming out. You must continue around and take the yellow/checkered.

Checkered Flag: End of the race. Slow to a moderate pace and proceed slowly to the scale.

Blue Flag with Orange Stripe or an all Blue Flag: A lapping kart is attempting to pass, hold your groove, and give him/her appropriate room, or you may be black-flagged.

Meatball Flag: (Black with a Red Ball): Will be thrown for unsafe equipment, loss of safety apparel, or mechanical problems, requiring the driver to exit the track for correcting the problem, you cannot return to the track during that race, but you will receive finishing points.

Black Flag: Disqualified.

- **Rolled & Pointed:** A warning about driver conduct. A warning flag is at the option of the flagman. Although it is understood that some inadvertent contact will occur, intentional and avoidable bumping, nerfing, pushing, etc. will be grounds for disqualification. You will be warned only once with a rolled black flag. A second warning will result in a waved black flag.
- **Waved (open) Black Flag:** You must exit the track immediately because you have been disqualified for a driving infraction or unsportsmanlike conduct, and you cannot return to the track during that race and you are no longer being scored. It will be a DQ.

Red Flag: The race has been temporarily halted. After slowing to a safe stop, drivers shall proceed safely to turn four where the pit boss will reset the line up.

- Restarts will be in the same order as the last completed and scored green flag lap prior to the red flag. Karts involved in the incident will be placed at the rear of the field. The pit boss must check any kart involved in a crash for safety before it will be allowed to race again.
- When the red flag is displayed if the race cannot be restarted as decided by the Board, the race will not be considered an official race unless it is at or past the half waypoint at the last complete and scored green flag lap. If the race is stopped, it will be scored at the last completed green flag lap prior to the red flag.
- If any work of any kind is done under the red flag, you must go to the rear of the field.
- Any kart or driver flipping over (turning over) will only be allowed to restart with the permission of the Board and/or the EMT's approval.

Yellow Flag: There is danger to a kart or driver on the track and there is a need for caution and reduced speed that will be set by the race leader.

- If a yellow flag is displayed in the corner it means beware of a possible incident directly ahead and use caution. This is not an official full course yellow, you are still racing, unless the yellow light is on or the flagman is waving the yellow.
- When the yellow light is on or the flagman is waving the yellow flag, it signifies a full course caution. **Do not** race back to the line on a yellow flag, slow down and hold your position. No passing will be allowed under a flagman's yellow flag or yellow light until the green flag is displayed again. Position will be based on the last completed and scored green flag lap. If there is a question about the line up, pull out of line in turn four and raise your hand to signal the pit boss so he/she can get you in the correct spot.

The rules that we have changed are highlighted in TURQUOISE.

- All of the participants involved in the incident will start at the back of the field on the restart. If you are involved in the incident, do not expect to “get your spot back.”

***Note:** This rule does not state who caused the yellow, it says, “all karts involved.” This excludes any kart that spun to avoid the incident.

The rules that we have changed are highlighted in TURQUOISE.

BOX STOCK CLONE MOTOR RULES

Box Stock Junior I:

Age 5 to 12 years – 275 lbs.

A .500-inch maximum intake restrictor is required.

Box Stock Junior II:

Age 13 to 15 years – 375 lbs.

Box Stock Senior:

Age 16 years & up – 375 lbs

Approved Engine:

Box Stock 6.5 OHV only, single cylinder, 2 valve, 4 cycle classes.

Important Note: All parts must be Stock Box Stock factory production parts unless otherwise specified in this rules manual. No machining or alteration of parts is allowed unless specifically noted. All parts will be subject to a comparison to a know Stock Box Stock part (when performing a comparison check it is recommended to use a +/- .005” tolerance). Engine will be teched as raced. **If it does not say you can do it, or you are not totally clear on something, don't do it until you check with the Board first!**

The following updates are optional changes. Aftermarket air filter adapter allowed (max length of 1.375). Main fuel jet may be drilled to a no-go of .042 inch. Stock emulsion tube must be used and unaltered. Any single stage, one piece header may be used, must be made from maximum 1.070” O.D. steel tubing with the Box Stock tube style muffler part number either #89966 or # 294599 or their aftermarket equivalent (ex: rotary power) installed at the end of pipe. The tube style muffler may either be welded or tread fitted to the pipe end. You may use a sleeve with a maximum length a 2” over the pipe to attach the muffler. Starter rewind may be retained as produced and intact, if rewind is removed, the flywheel cup must also be removed. Any style nut and use of electric starter allowed. No on board starters allowed. The ear tab may be removed from the restrictor plate if the ear hits when installing.

9. MOTORS:

Ignition System: Stock Box Stock system only and must be unaltered. Kill switch and low oil sensor may be disabled and removed.

Carburetor: Huayi model carb only. Carb to intake sealer is stock thickness gasket only. Choke must be as supplied from factory, but may be fixed to stay in open position. Choke bore .810” NO-GO. Venturi .615” NO-GO. Rear carb bore .751” NO-GO. Main fuel jet .028” NO-GO. No additives allowed in fuel. Fuel must be 100% gasoline.

Cylinder Head: Must be OEM casting only. Porting and / or grinding are not permitted. Valve seats are two angles 45 degrees valve face and 30 degrees top relief. Stock head bolts only, must have four. Head gasket maybe after market, must be of stock configuration and thickness. No copper or aluminum gaskets allowed.

Valve Train: Stock valve cover only with any stock configuration gasket. Factory stock rocker arms and push rods only. Stock valves only 45-degree angle only both valves, no modifications allowed. Only Box Stock valve springs only. Max wire diameter on spring wire is .0698” with a maximum tension of 10.8 lbs. at a height of .850”.

The rules that we have changed are highlighted in TURQUOISE.

Camshaft: Stock as cast camshaft only. Maximum running lift of .245" checked at valve as run.

Bore and Stroke: Stock cylinder bore is 2.685" max. Stroke is 2.123" +/- .005".

Combustion Chamber Volume: 27.5 cubic centimeter minimum, with piston at TDC, using prescribed procedure.

Block: Block must remain stock as produced. Stub for governor may be removed and hole plugged. No machining of block allowed. Welding to the block shall be for rod damage repair only and may not constitute a functional modification

Piston and Rings: Must be unaltered Box Stock only. No machining of piston and rings allowed.

Connecting Rod: Stock Box Stock rod only. No machining of any type allowed. Stock rod bolts only.

Crankshaft: Stock Box Stock crankshaft required. Machining, polishing, addition of material or other alteration of crankshaft is prohibited. Stock factory-timing gear mandatory and must be installed in original location. Crankshaft journal diameter is 1.180"- 1.175" min.

Flywheel: Stock Box Stock flywheel only with plastic fins. No alterations of any type allowed. Must also run stock flywheel key.

Clutch: Drum shoe type clutches only.

THE FOLLOWING ITEMS ARE MANDATORY:

Carburetor/Fuel Tank Requirements: Floor Mounted fuel tank mandatory (stock tank must be removed). Pulse type fuel pump allowed. Fuel pump must be pulsed from the crankcase, side cover, or the valve cover. You may install a flat metal plate in the original tank location for the purpose of mounting the throttle linkage and fuel pump.

Claimer Rule: A \$200 claiming rule is in place for this engine. You must finish the race in the box stock class to purchase the winners engine for \$200 (minus the clutch/chain guard/throttle kit, header pipe/muffler, air filter adaptor/air filter, top plate, and fuel pump). Refusing to accept the claimer will result in immediate disqualification of competitor along with forfeiture of any points earned to date in class. Competitor will also not be allowed to compete any longer in that class. If someone is found illegal, they will lose their points for that night. If a person is found illegal a second time for any reason during the season, they will lose their motor to the track. If that person does not give up their motor, they will no longer be allowed to compete in that class for the remainder of the season and will lose all of their points.

The rules that we have changed are highlighted in TURQUOISE.

JR1 AND JR2 MOTOR RULES GASOLINE FUEL CLASSES

The Board is authorized to decide if an equipment change or design is an attempt to “beat” the rules. They can and will disqualify an entry in violation of the spirit and intent of these rules. The Board shall have the right to correct conditions not in compliance with the spirit and intent of these rules.

The intent of these rules is that the motors be run as supplied from the manufacturer. **If a change or modification is not specifically stated in the rules, then it is not considered legal.** Unless there is specific mention made in these rule, modifications are not allowed. No machining or alteration of parts is permitted unless specifically noted in these rules. If a surface is machined from the factory, it may be re-machined to meet a listed dimension unless prohibited. Do not assume any item is legal because specific reference is not made in the rulebook. No reading between the lines. If it is not in the rules, it must remain stock. Ask your Board who will make an official decision. All parts must be B&S factory production parts unless otherwise noted in these rules. All parts are subject to comparison to a known stock B&S part. **UNLESS OTHERWISE STATED, ENGINE WILL BE TECHED AS RACED.**

10. MOTORS:

No titanium parts allowed.

Ignition: Unaltered B&S stock coil is mandatory.

- There must be resistance from plug wire to ground. Resistance must be a minimum of 3000 ohms and a maximum of 6000 ohms. Coil resistance may be rechecked after a minimum of 10 minutes if correct reading is not attained on the first check. (PVL ignition is legal)
- Stop switch and wiring may be removed.

Fuel:

- No additives allowed in fuel. Fuel must be 100% gasoline.
- Fuel will be tested by hydrometer.
- Pressure fuel tanks are illegal.

Oil: Flammable and dangerous additives to the oil are not permitted. Subject to flash test, chemical test, electronic test and laboratory analysis. Violators may be suspended

Fuel Pump: Auxiliary pulse type pump required. Pump must be pulsed only from crankcase side cover top oil fill cap only. No hoses or tubes to or from intake.

Air Filter: Any air cleaner permitted. Must be installed directly to carburetor. No filter adapters allowed. Filter may not be used as an air ram and must filter from all areas as raced.

Carburetor: PZ Model 15 Carburetor only. Carburetor to manifold seal is by O-ring only. Air must enter carburetor at air horn only. Choke must be stock as from factory and must operate. Spring or rubber band may be used to hold choke lever in position. Choke lever may have 1 hole drilled in it to attach spring.

- Throttle bore ID is .874” no-go. Must be as cast.
- Chokebore ID is 1.149” no-go. Must be as cast.
- **Venturi:** Vertical dimension is .792” no-go. Horizontal dimension is .615” no go. No machining allowed. Must be cast.
- Air pick off hole is .061: no-go.
- Throttle slide minimum length from top edge of slide to deepest part of cut away is 1.148”. Must be stock.

The rules that we have changed are highlighted in TURQUOISE.

- Jets must be stock gasoline jets only. Needle jet–BGB set at any notch ok. Factory markings required.

Restrictor Plate: Junior I Class Only: Must have a stock Horstman Red 3 hole Restrictor Plate and gasket, installed between the carburetor and intake with flange into intake port. On both sides of the plate a gasket is required, one o-ring on one side and one gasket on the other side. Horstman logo is clearly visible above carburetor when installed correctly. Any alterations, sanding, filing, making holes bigger, etc. of this plate, or if gasket is not installed is automatic grounds for disqualification.

Intake Manifold:

- Length: 1.740” minimum to 1.760” maximum.
- Inside Diameter: .885” no-go minimum, .905 no-go maximum.

Exhaust System

- Header shall have a maximum length of 24” to be measured in the ID using ¼” wide steel tape measure. Measurement to be made with silencer off of pipe and tape tight. If any part of the pipe is less than 24” the pipe is legal. Loop pipes, 360 ° turns are not allowed. Silencer must be a B91 with round baffle holes only. Baffle hole size must be 1/8” (.125). No silencer modifications allowed.
- Pipe may extend into port to fit the pocket cast into head. When measuring the overall length of pipes, the length that protrudes under flange, into port will be subtracted from overall length.
- Hole for exhaust thermocouple allowed. Thermocouple must be in place or hole otherwise plugged. Otherwise no extra tubes to, in, or through header pipe allowed.
- The header and silencer must be completely intact and operational at the start of an event. Muffler must be clamped to header.
- Muffler must be removable from header to tech. Muffler must not extend past rear bumper. Exhaust must exit to rear of driver
- Bolts or studs securing header must be safety wired. Muffler must be safety wired through a hole in the header brace. Safety wire should pass through the perforation on the end of the muffler. Do not weld on the muffler or drill holes in the muffler. Header or muffler supports brace is mandatory. Bracket to support header or muffler allowed.
- Block saver is allowed and Rotator not allowed in Animal classes.
- No adjustable pipes when on the racetrack. Must be fixed position pipe.

Valve Cover: Stock valve cover from factory mandatory. No after market breather systems will be allowed. Hose from valve cover breather hole is ok.

Head Gasket: Must be of stock B&S parts only. The minimum thickness of .042” will be measured in four places between head bolts on non-fire ring type of gasket. The measurement will be on the metal fire ring on fire ring type of gasket. Measurement will be made with micrometer from inside of gasket.

Cylinder Head: Stock B&S as shipped from factory is only configuration approved. Level machining of head gasket surface allowed to stock specifications as set forth in this rulebook. Bosses on back of head, just below valve cover gasket surface may be tapped for attachment of header supports. No reshaping of combustion or port area allowed. No welding or grinding on head anywhere is allowed.

- Depth of the head at the shallow part of the head is .011” min. The minimum depth at floor of head is .319”.
- Depth to top of valve seat is a minimum of .335” and a maximum of .360”.

The rules that we have changed are highlighted in TURQUOISE.

- Intake inlet port - .918” no-go. When checking 90° to line between center of studs, no-go will be straight. When checking on line with center of studs, no-go will set on floor of port at bottom and stop at upper edge of port on top.
- Exhaust outlet port is .980” no-go.

Rocker Arms: Must be stock. This is a critical part and will be examined closely. The minimum length of the rocker is 2.865.

Ball Rocker: Must be stock. Diameter is .600” ± .010.

Rocker Arm Studs: Must be stock.

Valve Spring Retainer: Thickness is .060” - .070”. Retainers & keepers must be stock B&S.

Valve Spring: Any single springs and shims are allowed.

Valves: Stock valves only. One angle only. Valve may not be polished or lightened. If working area (that portion of the valve stem translating with the valve guides) of valve stem is cleaned, no material may be removed such as linear grooves, cross-hatching, etc.

- **Intake Valve:** 45° face. Head diameter is 1.055” – 1.065”. The depth of dish in the valve is .099”-.119”
- **Exhaust Valve:** 45° face. Head diameter is .935” - .945”. The depth of the dish in valve is .084”-.104”.

Valve Guides: B&S stock factory or factory replacement guides only, as supplied from the factory. Maximum depth from intake cylinder gasket surface to top of valve guide is 1.255”.

Valve Seats: Must be on 45° angle only on valve seats.

- Intake seat diameter is .966” - .972”.
- Exhaust seat diameter is .844” - .850”.
- Replacement of valve seats with original B&S part is mandatory. Seats must retain original factory location and height.

Cylinder Head Plate: Must be stock as from the factory.

- Cylinder head plate gasket must be stock configuration and a maximum thickness of .055”
- May use a bolt on reinforcement plate, no welding allowed.

Push Rods: Must be stock.

- Diameter is .185” - .190”.
- Length is 5.638” – 5.656”.

Camshaft: Camshaft must be either stock from B&S or aftermarket camshafts meeting stock specifications are allowed, but must maintain the rules set forth in this manual.

- **Camshaft Readings:** All cam profile readings must be taken with zero valve lash and degree wheel set at top dead center (TDC) of the compression stroke with a positive stop inserted through spark plug hole. Readings shall be measured from the push rods. Zero dial indicator at TDC and do not reset during the profile process.
- **Camshaft profile limits:** Each lobe may be out of specification in two places, provided that subsequent visual inspection of camshaft lobes reveals no alteration to surface finish of lobes.

Intake Lobe		Exhaust Lobe	
Lift, in		Lift, in	
Inches	Degrees	Inches	Degrees
0.020	18-13 BTDC	0.020	61-56BBDC
	0 TDC-4		
0.050	ATDC	0.050	44-40 BBDC
0.100	16-20 ATDC	0.100	27-23 BBDC

The rules that we have changed are highlighted in TURQUOISE.

0.150	33-37 ATDC	0.150	11-7 BBDC
			1 BBDC – 3
0.175	42-46 ATDC	0.175	ABDC
0.200	53-57 ATDC	0.200	10-14 ABDC
0.225	67-71 ATDC	0.225	24-28 ADBC
Max lift is .257"		Max lift is .257"	
0.225	39-35 BBDC	0.225	78-74 BTDC
0.200	25-21 BBDC	0.200	64-60 BTDC
0.175	15-11 BBDC	0.175	53-49 BTDC
0.150	5-1 BBDC	0.150	43-39 BTDC
0.100	12-16 ABDC	0.100	27-23 BTDC
0.050	28-32 ABDC	0.050	10-6 BTDC
0.020	44-49 ABDC	0.020	5-10 ATDC

Valve Lifters: Must be stock as supplied by factory.

- Lifter head diameter minimum is .820" and a maximum of .860".
- The overall length of the lifter is to be 1.515" minimum to 1.525" maximum.

Block: Must be stock with no alterations, except cracks and block may be repaired from broken rod damage, providing that repair does not constitute a functional modification of original block. No welding is permitted from the cooling fins upward. Briggs & Stratton (B&S) Single bearing Intek engines/blocks may be converted to Animal engine as long as they are built to the rules as stated in this rulebook

- **Bore:** Stock bore is 2.690". Over boring permitted up to a maximum of 2.725", approximately .035 over.
- **Stroke:** Maximum stroke is 2.240". Push piston down to take up rod play. Check stroke from BDC to TDC.

Deck / Piston Clearance: Level machining of deck surface is permitted. Piston pop up cannot exceed .005" above block surface in the center of the piston. When measuring piston pop up, set bar stock across piston parallel to wrist pin in the center of the piston, and use a dial indicator to check the piston pop up in this area. When measuring piston pop up, hard carbon may be scraped from piston crown.

Piston: No alteration of piston allowed. Arrow must point toward flywheel. Wiseco Controlled Stock replacement piston is allowed.

- Minimum from top of piston to top of wrist pin on circlip side is .658".
- Minimum piston length is 1.768".

Piston Rings: Three rings mandatory. Top compression ring must have chamfer of O toward top of piston. Second scraper ring must be installed with inside chamfer down and O toward top of piston. Oil ring must be installed as from factory. No alteration of rings allowed except end gapping and lapping. Rings must be in one piece when removed from block.

- Minimum width of top two rings is .095".
- Thickness of top two rings is .059" - .064".
- Minimum width of oil ring is .065". Ring groove must be present. Expander must be installed.
- Thickness of oil ring is .098" - .102".

Wrist Pin: As supplied by factory.

- Maximum ID is .414".
- OD is .624" - .626".
- Minimum length is 1.901".

The rules that we have changed are highlighted in TURQUOISE.

Connecting Rods: Any stock or billet rod with or without inserts may be used as long as it meets stock length and configuration.

- Rod length, measured from bottom of wrist pin hole to top of crank journal hole, is 2.419" minimum to 2.429" maximum.
- Oil hole opening is .185" no-go.

Crankshaft: Stock B&S and Intek 206cc crankshaft with stock timing gear installed in stock location only. No alteration in any manner allowed. Offset crankshafts not permitted. No ceramic bearings allowed.

- Shim(s) must be installed as from factory.
- Crankshaft journal diameter is 1.094" to 1.100".
- Heat-treating of stock crankshafts legal in all classes using stock crankshaft.

Crankcase Side Cover: Must remain stock, except fuel pump must be pulsed from upper oil fill hole on front of cover. Penning of side cover of block side cover gasket surface is allowed.

Blower Housing, Control Cover and Bracket, Cylinder Shield: For safety reasons, all blower housings must be the new heavy style part # 555623. Fixed screen or guard must be affixed to blower housing cool air intake area. Any screen or guard fixed to the blower housing, that completely covers flywheel is allowed. There is no limit on the quantity of holes in the blower-housing screen or guard but if there are holes their quantity or size may not be adjusted while on the track. Adjustment may be made in the pits only. The plastic control cover may be modified to attach fuel pump and throttle bracket. The plastic control cover and bracket may be replaced with aluminum or steel cover plate of safe design using all four mounting bolts. The cylinder shield may be cut for thermal coupler and exhaust flange clearance.

Flywheel: Billet Flywheel B&S JR Racecar billet flywheel with plastic fan or B&S PVL steel center, aluminum rim flywheel with plastic fan allowed. Plastic fan is mandatory. No machining of flywheel is allowed. Minimum weight of JR Racecar flywheel with fan and bolts is 4 lbs; 8oz. Minimum weight of PVL flywheel with fan and bolts is 4lbs. 4oz. Any flywheel key or no flywheel key is allowed.

Starter: Starter rewind may be retained as produced and intact, if rewind is removed, the flywheel cup must also be removed. Any style nut and use of electric starter allowed. No on board starters allowed.

Clutch: Any 4 cycle dry clutch allowed. The clutch may not be manufactured from the following materials: titanium, carbon fiber, and carbon/carbon magnesium. No remote clutch adjusters. Mechanical centrifugal type clutches only. No axle clutches allowed.

The rules that we have changed are highlighted in TURQUOISE.

ADULT MODIFIED CLASS MOTOR RULES
NATIONAL LIMITED ANIMAL AND F200
GASOLINE FUEL CLASSES

The Board is authorized to decide if an equipment change or design is an attempt to “beat” the rules. The Board can and will disqualify an entry in violation of the spirit and intent of these rules. The Board shall have the right to correct conditions not in compliance with the spirit and intent of these rules.

The intent of these rules is that the motors be run as supplied from the manufacturer. **If a change or modification is not specifically stated in the rules, then it is not considered legal.** Unless there is specific mention made in these rule, modifications are not allowed. No machining or alteration of parts is permitted unless specifically noted in these rules. If a surface is machined from the factory, it may be re-machined to meet a listed dimension unless prohibited. **If it is not in the rules, it must remain stock. Do not assume any item is legal because specific reference is not made in the rulebook.** No reading between the lines. Ask your Board who will make an official decision. All parts must be B&S factory production parts unless otherwise noted in these rules. All parts are subject to comparison to a known stock B&S part. **UNLESS OTHERWISE STATED ENGINE WILL BE TECHED AS RACED.**

11. NATIONAL LIMITED ANIMAL:

Ignition: Stock electronic ignition only. There must be resistance from plug wire to ground. The resistance must be a minimum of 3000 ohms and a maximum of 6000 ohms. Coil resistance may be rechecked after a minimum of 10 minutes if correct reading is not attained on the first check. (PVL ignition is legal)

Air Filter: Filter and adaptor non-tech.

Carburetor: Any HL Tillotson or Zama WIT820 carb with butterfly throttle assembly. Venturri .900” no-go. Carb must be stock appearing with single or double pump stacks of original style on top of carb. Auxiliary full ring not allowed. Fuel Pump must be vacuum operated.

Fuel: .No additives allowed in fuel. Fuel must be 100% gasoline.

Intake Manifold: Non-tech item, except no atomizer intakes.

Exhaust System: Any header may be used; silencer must be RLV B91MO Modified Muffler. Studs or bolts allowed fastening header to head. Must be safety wired at head and muffler header brace mandatory.

Breather Assembly: B&S breather assembly #555688 from valve cover to upper oil fill hole is allowed. Aluminum tube may be replaced with longer tube. Tube may be secured to rubber fitting with hose clamps, ty wraps, or double wire wrapping. Tube must be supported by bracket, any bracket allowed.

Head Gasket: Stock B&S or aftermarket composite material allowed. B&S Fire ring head gasket is allowed. No aluminum, copper, or O-ring gaskets allowed.

Cylinder Head: Stock Animal head as shipped from B&S factory only. Head gasket surface may be machined. Minimum depth to floor of head is .310”. Heat disperser (555690) at exhaust side front is allowed.

Head Bolts: Four and only four stock head bolts mandatory.

Ports: Porting allowed but no welding or additional material in ports. Stock inlet and valve seat diameters must be maintained. Valve guides may be replaced with bronze inserts.

- Intake inlet port - .918” no-go.

The rules that we have changed are highlighted in TURQUOISE.

- Exhaust outlet port- .980" no-go.

Rocker Arm: Stock Animal or World Formula rocker arms only no modification allowed. Minimum length 2.865".

Ball Rocker: Must be stock. Diameter .600" ± .010.

Rocker Arm Studs: Must be stock. Top of stud may be cut off. Top of studs may be tied together above the rocker ball.

Valves: Stock Animal or World Formula valves, one angle only, no polishing or lightening.

- **Intake Valve:** 45° face. Head diameter is 1.055" – 1.065". The depth of the dish in valve is .099" - .119".
- **Exhaust Valve:** 45° face. Head diameter is .935" - .945". The depth of the dish in valve is .084" - .104".

Valve Seats: Stock B&S seats mandatory.

- Intake seat diameter is .966"-.972".
- Exhaust seat diameter is .844"-.850".

Cylinder Head Plate: Must be stock, bolt on reinforcement plate allowed. No welding on stock plate allowed. Large bolts maybe used to attach replacement plate.

Push Rods: Must be stock.

- Diameter is .185" to .190".
- Length is 5.638" to 5.656".

Camshaft: Any camshaft, lifters, retainers, valve springs, keepers allowed. Maximum lift .310". Maximum valve lift .307" taken directly off the valve retainer at zero lash. Maximum duration at .050"-248 degrees. Maximum duration at .200"-153 degrees with zero lash.

Block: Must be stock with no alterations. May be repaired from broken rod damage, providing the repair does not constitute a functional modification of original block. No welding from cooling fins upward.

- **Cylinder Bore:** No circular or machined grooving of cylinder is allowed. No plating allowed.
- **Bore:** Stock bore is 2.690". Over boring permitted up to a maximum of 2.725", approximately .035 over.
- **Stroke:** Maximum stroke is 2.240". Push piston down to take up rod play. Check stroke from BDC to TDC.

Deck/Piston Clearance: Pop out maximum .010" at center of piston parallel to wrist pin.

Piston: Any flat top piston and wrist pin allowed. No dome piston allowed. For the purposes of this class, the B&S World Formula pistons are flat top pistons.

Connecting Rod: Any rod allowed.

Crankshaft: Stock B&S crank with stock timing gear installed in stock location only. Minor grinding for clearance of camshaft allowed. No other alterations allowed.

- **Crank Journal Diameter:** 1.094" to 1.100".

Shrouds and Covers: Engine shroud must be the Heavy gauge one from B&S. Taping of flywheel screen allowed. Plastic cover and mounting bracket may be removed. Bracket attaching flywheel shroud to control cover bracket may be removed from flywheel shroud.

Flywheel: B&S Billet flywheel or PVL flywheel with plastic fins only permitted. No cast flywheels allowed. Any key or no key is allowed.

Starter: Recoil or starter nut allowed. Starter cup must be removed if recoil is removed.

The rules that we have changed are highlighted in TURQUOISE.

12. F200:

The use of Briggs & Stratton stock Animal 6.5 hp. Single bearing Intek engines/blocks may be converted to Animal engine as long as they are built to the rules as stated in this tech manual. F200 engine makes allowed are: Honda, Briggs & Stratton, Yamaha, Tecumseh, and Kohler. Racing series website www.burrisonationalspeedwayseries.com.

Approved, commercially available, single cylinder air-cooled overhead valve engines. 200 cc's maximum displacement. See chart for approved engines.

Block, Cylinder Head, Crankshaft, and Side Cover: Must be approved OEM items. Cylinder head, block, and side cover external surfaces may be machined to remove excess material from mounting bosses, cast in brackets, etc that are no longer in use. No external machining allowed enhancing performance.

Exhaust: 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 are non-tech. If a silencer is required the RLV Model B-91XL* (Pt# 4104) is the only approved model. * Also referred to as B-91.

Carburetor: Any commercially available butterfly type Tillotson HL series carb. Minimum/maximum venturi diameter = .750/. 790". Minimum/maximum throttle bore diameter = .990/1.010". Metering holes non-tech. Filter cups, adapters, and air filters non-tech items. The carburetor pulse passage is non-tech. Its sole and intended purpose it to actuate the fuel pump inside the carburetor. Pulse type fuel pumps permitted.

Fuel: .No additives allowed in fuel. Fuel must be 100% gasoline.

Intake Manifold: Aluminum only. Maximum mean inlet tract length is 2". Length determined by adding the longest and shortest tract distances (flange to flange) together and dividing by 2.

Connecting Rods: Aluminum only. (Fasteners and inserts/bushings excluded) Stock length (plus or minus .010") to be maintained. See chart for specific details.

Pistons: Any aluminum three ring (compression, scraper and oil and they must be present in grooves), flattop, or dished piston. (No domed or pop up types) Rings and wrist pin non-tech but must be of steel (ferrous) material. OEM wrist pin diameter to be maintained. See chart for maximum bore size and wrist pin diameter for a specific engine.

Crankshaft: Standard OEM item with stock stroke length (plus or minus .010"). Thermal treating and shot peening permitted. Minor grinding for camshaft clearance permitted. No other alterations allowed. See list for specific stroke details.

Flywheel and Ignition Coil: Aftermarket or OEM flywheels permitted. If OEM flywheel is used it must be unaltered and meet minimum listed weight the stock OEM coil (ignition system) must be used. Approved aftermarket flywheels only may be used. Spec diameter and weight as follows; 6.75" +/- .25" dia. X 4.75 lbs +/- .75 lbs. When using aftermarket flywheels, any approved OEM F200 coil may be used on any engine. (i.e. Briggs coil on a Honda, Tecumseh coil on a Kohler, etc) External coil modifications to facilitate mounting are legal. Coil mounts, flywheel key, spark plug boots and plug wires are non-tech items. See below for approved flywheels.

Cylinder Head: Original factory casting only. Two valves maximum and must maintain original location, (angles are 90° from deck with listed spacing). Carb inlet and exhaust outlet in the head have to be in their stock intended locations. Porting and grinding permitted. No external addition of metal to enhance performance allowed. Spark plug to be 14mm X .75 reach only and original stock location maintained. Minimum combustion chamber volume when mounted on engine @

The rules that we have changed are highlighted in TURQUOISE.

TDC is 24 ccs. This is to be done after the event and when the engine has cooled down to a reasonable temperature. (Note – Briggs W/F head legal but must use a 14mm spark plug.)

- **Cylinder Head Repair.** Aside from the above, each engine brand will be allowed an approved area on the inlet and exhaust tracts for external repair of broken through “thin cross sections” during the porting process if deemed necessary. The area shall be no greater than a .5” (1/2”) square and either epoxy or welding is acceptable. This repair has to be confined to the “approved” area shown on the list below.

Valve Train: Push rods, push rod guide plates, retainers, springs, keepers, rocker adjusters, etc, non tech. Steel valves, springs and push rods only. Retainers may be of aluminum or steel. Intake valve diameter, 1.080" maximum, exhaust valve, .990" maximum with a minimum stem diameter of .188" (4.77mm). Stock OEM rocker arms only (with no alterations to their stock ratio). No interchange of rocker arms between engine brands. Stock (Briggs) OEM cylinder head plates only. Rocker arms and (Briggs) cylinder head plates may be welded or reinforced for strength. No other alterations to original configuration permitted. Flat tappets only, must be stock appearing. Unless otherwise specified no titanium components allowed.

Camshaft: Maximum (actual) lift .275" measured at valve. This is to be done after the event and when the engine has cooled down to a reasonable temperature. **Note** – If the camshaft has a compression release it needs to be taken into account when zeroing the indicator on the exhaust lobe. Cam and crank gear non-tech.

Fasteners: Non-tech, but must remain in original location. Helicoils, studs, etc allowed.

Gaskets: Non-tech.

Lubrication System: Must retain splash type oiling system.

Bearings: All 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.

Coatings: Wear type coatings allowed on valve train, valves, camshaft, wrist pin and crankshaft only. Coatings of any type not allowed on block, head, piston, rod, or side cover.

Crankcase breathers are to be routed internally through the valve cover as originally intended in OEM configuration. No additional breathers allowed.

Approved flywheels are the ARC models 6606, 6608, 6613 (w/starter ring gear), 6614 and the UMMF model FA-100 and the FS-1001. Briggs Animal flywheel (JR Racecar type pt #699305).

New engines are to be submitted by the manufacturer (or its authorized representative) for approval no later than October 1 to be eligible for the following competition year. Approval is not automatic and is up to the discretion of the BNSS.

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Approved Engines and Specifications

Make	Briggs	Honda	Kohler	Tecumseh	Yamaha	Notes
Model	Intek 5.5*	GX200	C6 XKE	OHV 5.5	YF200 R1	
Bore, Std	2.688	2.679	2.638	2.797	2.598	Standard Bore
Bore, Max.	2.760	2.709	2.783	2.833	2.809	Maximum allowed
Increase	0.072	0.030	0.145	0.036	0.211	Increase from std.
Stroke	2.040	2.125	2.008	1.938	1.968	Standard Stroke +/- .010
Rod length	3.375	3.303	3.425	3.484	3.324	Cntr to Cntr. Tolerance is +/- .010
Rod length	2.514	2.358	2.540	2.703	2.459	Inside length
Wrist pin dia	0.625	0.708	0.550	0.563	0.630	Tolerance is +/- .0025
Rod journal	1.098	1.180	1.218	0.999	1.101	Tolerance is +/- .0025
Flywheel	5.75 lbs	5.75 lbs	8.1 lbs	7.0 lbs	6.5 lbs	Approx. weight in pounds
Valve spacing	1.382	1.219	1.380	1.250	1.181	Valve angles are 90° from deck

* Briggs Animal & World Formula blocks, heads and side covers also approved.

Approved Port Repair Areas



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SPOKANE COUNTY ORV PARK RULES

1. No open fires.
2. No pets allowed.
3. Anyone riding/driving any kind of off-road vehicle must wear a helmet.
4. No bicycles in pit area after qualifying starts.
5. No Alcohol of any kind at any time is allowed at the track or on the ORV grounds.

These rules are mandated by the county and are for everyone's safety.