

### QUARTER SCALE AUTO CLUB, Inc.

Website http://www.qsac.org



# 2005 Official Rules Package and Corporate Bylaws

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#### **Table of Contents**

Intro	oduction3
200	5 QSAC Calendar3
200	4 QSAC National Champions4-5
	4 QSAC District Champions5
	ety Requirements6
	neral Requirements7
	ck Sanctioning and Construction Requirements7
	h Purse Payout Schedule7 e-Day Schedule of Events8-9
•	Sign In and Registration
•	Practice
•	
	Driver's Meeting
•	Concourse'
•	Pre-Race Tech Inspection
•	Pill Draw or Single Car Qualifying
•	Trophy Dashes (optional)
•	Heat Races
•	Main Events
•	Post Race Tech Inspection
•	Awards
Rac	e Format - Procedures10-11
•	Standardized Entry Fees
•	Flagman Race Starts
•	Yellow Flag
•	Restarts
•	Checkered Flag
•	Black Flag
•	Pit Stops - Refueling - Red / Green Flag Stops
•	Driver - Pit Crew
•	Un-Sportsmanlike Conduct
•	Protests
QS/	AC National & District Championship Races12-13
•	Introduction
•	National Race Format
•	Backup Car and Body
•	Track Fuel
•	Rain Out Rule
•	District Race Format
San	nple Entry Form For National and District Races13
	AC National Touring Series-QSAC Nationals14-15
•	Introduction
	<ul> <li>Format</li> </ul>

Backup Car and Body

_	T	F 1
•	Track	Fuei

Rain		

General Car	Specifications		16-17
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- Engine
- Exhaust
- Carburetor
- Clutch
- Ignition Module
- Fuel
- Fuel System
- Car Numbers
- Chassis
- Tires and Wheels
- Miscellaneous

•	Impact	Parts
•	IIIIDati	гана

20
21
27
30

# Hello and welcome to the 2005 QSAC Official Rules Package and Corporate Bylaws

#### TECHNICAL COMPLIANCE RESPONSIBILITY

It is the responsibility of each driver to insure his/her Quarter-Scale Race car is in total compliance with all applicable QSAC Rules. This means Safety, General and Technical Specifications as defined herein. It is important that each competitor read and understands all of the rules as they apply to safety, race format, driver-conduct, and technical specifications. Ignorance of the Rules is not a defense for violation of them. Failure to comply may result in immediate disqualification, loss of points for the event and further action as deemed necessary by QSAC.

### 2005 QSAC Calendar

Mid February.....First Newsletter

April 22<sup>nd</sup> – 23<sup>rd</sup>..... Western District Championship Race to be held at:

Northwest R/C Speedway in Pasco, Washington

Mid May...Second Newsletter

May  $20^{ih} - 21^{st}$ .....Eastern District Championship Race to be held at:

Carolina R/C Speedway in Easley, South Carolina

Mid June...Third Newsletter

June 24<sup>th</sup> – 25<sup>th</sup>.....QSAC National Championship Race to be held at:

Boulder City R/C Speedway in Boulder City, Nevada

June 24th..... 2005 QSAC Questionnaire handed out at the QSAC National's

\*This questionnaire will be used for mid-season QSAC suggestions and direction

Mid July.....Fourth Newsletter

July 29<sup>th</sup> – 30<sup>th</sup>.....Central District Championship Race to be held at:

Dallas-Fort Worth R/C Raceway in Burleson, Texas

August 1st.....Deadline for 2006 Rule Change Suggestions

August 1st.....Mail out Co-Chair ballot and 2005 QSAC Questionnaire

\*This questionnaire will go out to all QSAC members and will include suggestions, direction and any QSAC By-Law changes which need to be addressed and voted on.

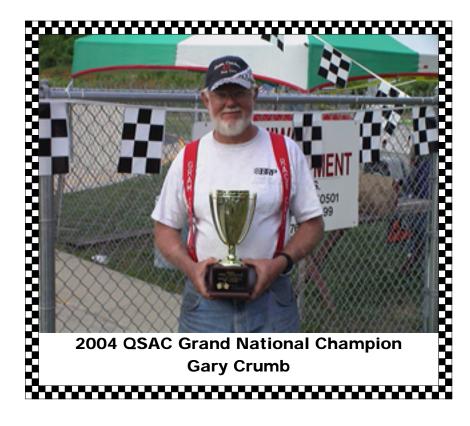
Mid August.....Fifth Newsletter

September 1<sup>st</sup>.....Deadline for QSAC Co-Chair ballot November 16<sup>th</sup>.....Deadline for 2006 QSAC Race Event Bid Package

December 1<sup>st</sup>.....2006 Rules Package announced December 1<sup>st</sup>.....2006 QSAC Race Locations announced

Mid December.....Sixth Newsletter

# **2004 QSAC National Champions**









#### 2004 QSAC Sprint Car Champion Nick Beaver

### **2004 QSAC District Champions**

#### **2004 QSAC Western District Champions**

Grand National.......John Ferguson
Sportsman.....Mike Dill
Open Wheel.....Ron Schoeb
Super Truck.....Jeff Miller
Novice......Matt Sloan

#### 2004 QSAC Central District Champions

Grand National......Scott Schramske
Sportsman.....Sean Anderson
Sprint Car.....Randy Baker

#### 2004 QSAC Eastern District Champions

Grand National......Jeremy Yoemans
Sportsman......Greg McKinney
Sprint Car.....Randy Baker

#### SAFETY REQUIREMENTS

- All drivers, officials, and pit crewmembers/mechanics must be current members of QSAC to enter the track, hot pit or paddock.
- The QSAC membership-insurance card or receipt of application must be displayed at all times during the racing event and must be presented when signing in.
- Race promoters/Track owners must be able to show proof of QSAC track site insurance.
- There must be at least two readily accessible dry-chemical "BC" fire extinguishers of not less than 1 gal. capacity, located at each end of the hot-pits.
- The track perimeter will have a minimum 3-foot high retaining wall or barrier capable of stopping the cars without penetration. Spectators must be kept at least 4 feet behind this 3-foot wall.
- The entrance and exit from the track must be protected to prevent cars from inadvertently leaving the racing surface in the direction of the pit or spectator areas.
- Tracks must have a pit lane, separated and protected from the racing surface, for car service.
- It is highly recommended that a catch fence be place atop the "pit-wall" using fence fabric capable of rejecting a 1/4 scale car and that the "catch-fence" be a total of at least three feet including the pit-wall itself.
- Tracks may be asphalt, concrete or dirt but must be free of standing water or debris that may be injurious if thrown by the cars.
- No alcohol will be allowed in the race area during racing activities. "Racing activities" are defined to include the awards ceremonies.
- Spectator areas may allow alcohol only if that area is strictly separated from the track and pit areas. Any driver or pit crew drinking alcohol during racing activities will be disqualified. Repeated offenses will result in loss of membership.
- 12. Only QSAC members may enter the "Hot Pit" or racing areas during race activities. A "Hot Pit" area is any location or area where a car's engine may be started while on ground. The "Hot Pit" must be separated from the "Working Pit" by a 3-foot fence or wall. QSAC card must be carried and displayed.
- 13. There will be no smoking allowed in the "Hot Pit" area.
- Firearms are specifically prohibited on any person during any QSAC event.
- 15. No one will be allowed inside the 3-foot retaining wall while the cars are under the green flag. Pit crew or turn marshals may enter only after the yellow flag is displayed and the cars have slowed to idle or stopped.
- QSAC encourages that a carburetor return-spring be utilized to force throttle-closure in the event of certain electrical or electronics failures.
- 17. No car will be permitted on the track with a leaking fuel system.
- Refueling containers will be closable and marked to alert others of their contents.
- All races will require a flagman and an assistant who will see that all drivers, pit crew and spectators are safely positioned while the cars are on the track.
- The race activities must always display the maximum safety for spectators, drivers, officials, etc.
- 21. Members and/or tracks that fail to abide by or violate QSAC insurance policy guidelines, may face disqualification and/or suspension of membership or track sanction. The appropriate penalty will be determined by the QSAC Co-Chairs.

#### GENERAL REQUIREMENTS

- The race format, program of events and types of cars will be the race organizer's responsibility.
- All QSAC sanctioned and insured events should follow the QSAC format.
- All drivers must register for the event prior to operating a car, giving officials the radio frequency he/she will be using. Any changes in frequency must be reported to officials immediately.
- 4. Any car not slowing for the yellow flag may be placed at the rear of the pack, or in the case of repeat offenses, black flagged and removed from the track for the duration of that race.
- Disabled cars will be taken off the track for repair. No repair work will be allowed on the track or infield while the cars are running, except for the replacement of a lost wing or dislodged drive belt.
- QSAC or track official may deem a car or driver a hazard and order the car retired from the race.
- 7. Cars may only be driven from the designated driver area.
- No driver may leave the driver's stand to retrieve a disabled car from the track surface. Only pit crew or track personnel may retrieve disabled cars.
- All cars must have an operational clutch and brake that will allow the car to stop with the engine running and proceed when requested by tech officials.
- All cars shall have adequate (preferably FOAM) bumpers. Any bumper considered being a hazard by tech officials should be corrected before said car shall compete.
- No aircraft frequencies will be permitted.
- A frequency control board will be in use at all events with a removable clip for each available frequency.
- 13. Any driver racing or working on a car (with his/her radio "on") must have the appropriate frequency clip attached to the radio antenna. No transmitters will be "on" without the clip attached. Failure to comply may result in disqualification.
- Radio frequencies of each participant will be posted to alert drivers and officials of frequency conflicts.
- Radio impounds may be implemented at the race organizer's discretion. The impounding of radios will be optional at all Region, District, and National Championship Events.



# TRACK SANCTIONING AND CONSTRUCTION REQUIREMENTS

- Track must at all times follow all SAFETY REQUIREMENTS set forth by QSAC.
- Track must be operated in a manner that is considered fair and equitable within reason at all times.
- Track must also operate in a manner that is conducive to a family atmosphere.
- Track must agree to operate under QSAC rules at all QSAC sanctioned Region, District, or National events. There is no allowance for rule deviation unless authorized by an Area Director, Region Director, District Director, QSAC Competition Committee Chairman, or QSAC Co-Chair.
- If more than four written complaints by current QSAC members are received in one year concerning a particular track, then that track will come under review by QSAC Competition committee and may lose sanctioning and forfeit all fees paid.
- QSAC reserves the right to cancel sanctioning at any time, but must be by a majority vote from the QSAC Committee Chairmen.
- Track must submit photos of safety measures to be reviewed by the Competition Committee Chairman when applying for sanctioning.
- For tracks that are built with a temporary retaining wall, (parking lot), if the track is under 200 feet around measured on inside of the track, then 24 inches is sufficient height for the wall. If track is over 200 feet, then 36 inches is required.
- It is strongly recommended that each track provide a fenced extension to the top of the pit-wall for the protection of the crews in the hot-pit. Such extension should bring the total height of the pit wall to at least 3 ft.
- Tracks may be asphalt, concrete or dirt and the configuration may be road course or oval.
- 11. Tracks must have a pit lane, separated and protected from the racing surface, for car service.
- 12. The track sanctioning fee per year is \$80.00.
- Sanctioning requires pictures of track and surrounding grounds and written description of fencing and safety equipment.
- 14. Each track or facility MUST have it's own sanction.

#### **CASH PURSE PAYOUT SCHEDULE** (SUGGESTED)

If a promoter elects to have a cash purse at any QSAC sanctioned event, the cash payout should follow the QSAC payout schedule as defined below.

Purses per class are determined by the number of entries in that class, meaning the total number of cars (all classes combined) divided into the total purse, multiplied by the cars in each class is equal to the purse available per class.

#### **EXAMPLE:**

- 1. \$5000 Total Purse, 100 Total Entries (50 GN, 30 SM, 20 SP)
- \$5000 divided by 100 = \$50 per car
- 3. Purse per class
  - 50 GN entries x \$50 = \$2500 GN
  - 30 SM entries x \$50 = \$1500 SM
  - 20 SP entries x \$50 = \$1000 SP

#### **PAYOUT PERCENTAGES PER CLASS**

Since only the A-Main participates in the payout, the following represents the percentage, per position, in the A-main of each class.

#### **FINISH POSITION**

- . 25%
- 2. 20%
- 3. 15%
- 4. 10%
- 5. 8%
- 6. 7%
- 7. 5%
- 8. 4%
- 9. 3%
- 10. 3%

100%

Total

Note: At District and National Events, the fees collected from the entries will be allocated with the Host Track receiving 50%, the Race

Purse receiving 35%, and QSAC receiving 15%. All fuel fees will be allocated directly to the Host Track, unless special arrangements are made between QSAC and the Host Track prior to an Event.

#### **RACE-DAY SCHEDULE OF EVENTS**

QSAC sanctioned oval track races should follow the official race format outlined below to insure consistent and safe racing throughout the country. Major deviations from this format must be cleared with QSAC with respect to safety.

Local events, that is, non-Championship or Regional events that do not expect to draw competitors from other areas or regions may deviate from the format and general rules, but in no case are any deviations from defined Safety Requirements acceptable. Failure to comply with the Safety Requirements may lead to cancellation of track sanction and insurance.

#### Race-day schedule of events

- 1. Sign In and Registration
- 2. Practice
- 3. Driver's Meeting
- 4. Concourse
- 5. Pre-Race Tech Inspection
- 6. Pill Draw or Single Car Qualifying
- 7. Trophy Dashes (optional)
- 8. Heat Races
- Main Events
- 10. Post Race Tech Inspection
- 11. Awards
- Sign in and Registration All competitors must sign in and register to show proof of QSAC membership and insurance before they are allowed on the track. Membership Card must be worn in plain sight at all times during the event.
- 2. Practice "Controlled" practice must be available on race day to all the drivers and cars in the day's program. Each class of cars will be allowed to practice for a specific length of time (approximately 15 20 minutes) then alternated with another class. At least 2 rotations of practice is advised and more if time permits. No more than 10 cars on the track at a time. Each driver may return to the track as many times as he or she wish within a session provided they don't prevent others from equal track time. Each car and driver practicing must have signed up and paid their entry fee prior to race day practice.
- 3. Driver's Meeting Prior to each day's events, the track officials shall conduct a meeting of drivers and pit crews for explanation and discussion of the day's events, local ground rules, specific event regulations and rules clarifications. All drivers, their pit crews and race officials are required to attend. It is each driver's responsibility to see that he and his crew are present. Failure to comply may result in penalty to the driver.
- 4. Concourse Concourse is the judging and awarding of the best appearing car in each class. It will be based upon authenticity, beauty and color, cleanliness, design and attention to detail. Judging will be the responsibility of the race promoter or his designate. Concourse bodies need not be raced, but each body is eligible to win one Concourse competition only.
- 5. Pre-race Tech Inspection At all Region Point-Series, Region Championship, District and National events, all cars must go through a pre-race tech inspection to insure compliance to QSAC rules and technical specifications. Each car will be weighed, measured and visually scrutinized for compliance prior to taking the track. Each car-passing tech will receive a sticker. No car will race without tech sticker. Any car not in compliance with the rules will be given ample opportunity to correct the problem.

**Note**: It is suggested that pre-race tech inspection be used at local/weekly events on a periodic basis to insure rules compliance.



#### 6. Pill Draw or Single Car Qualifying

At the time of sign in and registration each entrant will vote for:

- 1. Pill Draw or Single Car Qualifying
- 2. Invert The Heats or Run The Heats Straight Up

The entrants of each class will determine what their class will do.

**Pill Draw** - The track owner/promoter must provide a Pill-Draw capability consisting of a set of "pills" numbering at least 1-50. Draw per class must include only the number of pills to equal the number of cars entered in the class. (i.e.: 20 GN's = pills 1-20 for draw) . In addition, at weekly races, track officials may choose to use the "Computer-Scramble" option available in some computer-scoring systems.

Single Car Qualifying - Each car will be given 4 timed laps. The fastest of the four laps will be its qualifying time for the day and will be used to position it for the heat races. Each car will qualify in the order posted by the officials. If a car misses it's qualifying order either by choice or other wise, it will fall to the rear of the line in its class and will be given only 2 qualifying laps. A driver may "wave off" a qualifying attempt provided his car does not cross the start/finish line on it's first timed lap. Only 2 laps will then be allowed on the second attempt after the others in the class have qualified. If a "racing accident" occurs prior to completing one timed lap and the car cannot continue - 2 laps will be allowed. If the accident occurs after the second lap, the qualification is considered completed. At least one warm up lap must be allowed before a car goes on the clock. The qualifier must race the car he/she qualified with.

- Trophy Dashes Should the race promoter elect to hold trophy dashes, they will consist of the four fastest cars in each class started inverted - fastest cars in the rear. Race duration may up to 10 laps.
- Heat Races Heat races will be lined up according to class and by each car's pill draw position or qualifying time as in the following example 24 car field:

	Pill Draw - (24 cars should be run in four 6-car heats)					
Start Pos	Heat #1	Heat #2	Heat #3	Heat #4		
1	Fastest Qualifier	2nd Qualifier	3 <sup>rd</sup> Qualifier	4 <sup>th</sup> Qualifier		
2	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>		
3	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>		
4	13 <sup>th</sup>	14 <sup>th</sup>	15 <sup>th</sup>	16 <sup>th</sup>		
5	17 <sup>th</sup>	18 <sup>th</sup>	19 <sup>th</sup>	20 <sup>th</sup>		
6	21 <sup>st</sup>	22 <sup>nd</sup>	23 <sup>rd</sup>	24 <sup>th</sup>		

Each heat race round of a specific class must be run off before the next class's heats. The sequence will be Sprint Cars, Super-Modifieds, Novice, Super Truck, Sportsman, Grand National.

Heat race duration may be			
Open Wheel Cars	15-35 Laps		
Novice Stock Car	15-35 Laps		
Super Truck	30-50 Laps		
Sportsman Stock Car	30-50 Laps		
Grand National Car	30-50 Laps		

#### 9. Main Event

A maximum of 10 cars will make up each main event.

The top 6 qualifying cars will automatically transfer into the "A" Main. The remaining cars will be placed into the lower mains based on qualifying results.

The top 4 cars from the lowest main's results will "bump" into the next main. The top 4 cars from the results of that main will then "bump" into the next main and so on through to the "B" main.

The top 4 finishers from the "B" main will make up starting positions 7 through 10 in the "A" Main.

It is the promoter's option at local and regional races to run one to three rounds of qualifying heat races. District Races will run 2 rounds of heats. The National Championship Race will run 4 rounds of heats. If only one round of heat races is used because of weather, the cars transfer into the mains according to their finish from that heat race.

The number of heat race transfers to each main event is dependent on the number of heat races run. For example, if 14 cars are entered, two heat races of 7 cars each would be run. The top 3 cars from each of the 2 heats would transfer into the "A" Main. The remaining 8 cars would run in the "B" main with the top 4 finishers "bumping" into the "A" Main.

If more than one round of qualifying is run, a point system where first place earns 1 point, second place earns 2 points, third place earns 3 points and so on would be used. The six drivers scoring the least points would automatically transfer into the "A" Main with the driver with the lowest total score winning the pole position. Ties in points would be decided by qualifying times (or pill draw if used).

The following charts outline the number of laps for the various classes and mains.

Main Event Duration (Local & Regional Races)				
	A-MAIN	B-MAIN	C-MAIN & DOWN	
Sprint	35 Laps	20 Laps	15 Laps	
Super Modified	35 Laps	20 Laps	15 Laps	
Novice	75 Laps	40 Laps	30 Laps	
Super Truck	100 Laps	40 Laps	30 Laps	
Sportsman	100 Laps	50 Laps	30 Laps	
Grand National	150 Laps	75 Laps	30 Laps	

10. Post Race Tech Inspection—At all Region point series races, Region Championship races, District and National events, the top four A-Main finishing cars must be impounded and the top three must complete the post race tech inspection before the race results can be made final. The fourth place car will be an alternate should one of the others be disqualified. In the event, that all four impounded cars are disqualified, the fifth place car will be declared the winner.

At the completion of each "A" Main, all the finishing cars must be stopped and remain on the track until the results are announced. The drivers or pit crew will be allowed to shut off the engines but no other work is allowed.

The top four cars will be removed by the officials to a guarded impound where the top three cars will be re-weighed, re-measured, and carefully checked for rules infraction.

In addition, each engine will be checked using the properly calibrated and certified instruments. Each engine must be checked also for: visible signs of modification, carburetor bore size and carburetor-mounting block bore size. During a District or National Championship Race, a post race technical inspection of a car and engine from each class shall be mandatory. Such inspection shall include measuring port heights, the cylinders will be removed and inspected, the crankcases split and inspected internally, and all other stipulations of the particular class. Upon completion of each "A" Main, the top four finishing cars in each class will be immediately impounded by the National Tech Director or QSAC Tech Inspection Supervisor. The Tech Director or Supervisor will administer a random draw of one of the top three cars to

determine who will under go inspection. The driver or his designate must perform all disassembly work. The track must provide an adequate setting for the post race technical inspection. In the event that post race inspection finds a participant to be outside the rules, another of the top four cars will be chose for inspection.

Any car found to be illegal would be disqualified from the event relinquishing any prize and/or points awards.

The QSAC Tech Inspection supervisor will impound any part of any engine found to be illegal due to the addition or removal of material. An engine found to be altered, even though it may measure legal, will be disqualified and the altered parts will be confiscated and destroyed.

Examples: Cylinders with polished and/or enlarged and/or repositioned intake, exhaust, or transfer ports, sand or bead-blasted surfaces, or machined base, machined crankcases, altered or lightened flywheels, enlarged carburetor or mounting block bores etc.

Note: It is suggested that post race tech inspection be used at local/weekly races on a periodic basis to ensure rules compliance.

 Awards - Following tech inspection, the race results will be declared official and the awards will be given out. Awards may be any or all of the following:

Local, weekly, and/or series races may award points, cash, trophies, or non-cash prizes but must award points according to the QSAC schedule. Region point series, Region championship races, District and National races must be advised to QSAC and the dates cleared by QSAC. Promoters will not be required to commit to a guaranteed (beyond an entry fee payout) purse.

It will be left up to the promoter if they wish to have trophies/awards and/or a cash purse for Region Championship events. Region Championships are to be promoted primarily for the benefit of the racers who have supported the races at tracks within their respective Region, whether Region Series Races or the weekly events at their local tracks. To qualify as a bona-fide Region Championship, such events should be scheduled near the conclusion of the regular racing season, (i.e.:) the fall of the year.

Trophies or Plaques, Cash Awards or Non-Cash Awards, Points Cash awards will follow the QSAC payout schedule. Point's awards will follow the QSAC Point Allocation System

Finishing Pos	Points	Finishing Pos	Points
1	200	11	160
2	196	12	156
3	192	13	152
4	188	14	148
5	184	15	144
6	180	16	140
7	176	17	136
8	172	18	132
9	168	19	128
10	164	20	124

#### **RACE FORMATS - PROCEDURES**

#### Standardized Entry Fees

Following entry fees will apply to QSAC sanctioned races:		
\$10.00—\$20.00	Local—Weekly Races	
1st Car—\$40.00 or Less	Region Point Series Races	
1st Car—\$40.00 or Less	Regional Championship	
1st Car—\$50.00 or Less	Special National Events	
*See Table Below For Fees	District & National Championship	

Class	Entry Fee	Fuel Fee		
Sprint Car	\$40	\$5		
Provisional Class	\$40	\$10		
Super Truck	\$45	\$10		
Sportsman	\$45	\$10		
Grand National	\$50	\$10		
*No Discount Given For Second Class*				

#### Flagman and Race Starts

Each race will have a flagman and/or race director who will control the race events. He must have an assistant to help spot problems around the track and assist in car lineups, frequency problems, etc.

The flagman and assistant will pre-align the cars for each race in their starting positions and are responsible that no frequency problems

The cars will be allowed five warm up laps before each race to warm up tires, engines, etc. After warm up, the flagman will yellow flag the cars to line up single file or in two lines, (promoter option) in the race lineup, at a slow pace. When the cars are properly aligned, the green flag will be flown as the cars come off turn four.

The flagman must also use a whistle or horn as an audio signal to the drivers of any change in flag situations.

There will be no inside passing after the green flag is displayed on starts until the cars have crossed the start/finish line. Violation will result in the immediate display of the yellow flag, and the violator will be placed at the back of the field.

#### Yellow Flag

The flagman will fly the yellow flag and use the audio signal for any car stopped on the track infield or outside perimeter of the track after allowing sufficient time for the car to resume under it's own power. He should refrain from yellows if the car can continue.

The driver of a car who goes to the infield by choice must indicate to the flagman if he wants a yellow or not.

Cars involved in yellow flag situations and who require attention on the track to continue must go to the rear of the field.

Cars requiring repair during yellows must be taken to the pit lane for work. No work is allowed on the track except for replacement of wings or dislodged drive belt, in which case the car goes to the rear.

No car may re-enter the track that is "green" except in the full-body classes.

It can be an option to count all yellow laps and allow cars to enter under a green flag.

Yellow flag situations will be a minimum 2 laps or at flagman's discretion starting with first incident, with no passing under yellow.

A lap penalty will be assessed for passing under yellow. All cars must hold their position behind the leader as designated by the flagman.

Any car causing three (3) yellow-flags in any one race may be blackflagged.

The leader and all cars must slow to a speed that satisfies the flagman. Any car not slowing will go to the rear.

When the yellow flag appears, the track is yellow all around -no racing back to the start/finish.



The flagman must allow yellow flag cars sufficient time to catch up to the rear of the field. If a car is not able to catch up or

wishes to be passed during yellow to prevent danger to other drivers, the driver must pull to the infield side of the back straight to indicate to the flagman and fellow drivers his situation.

If an incident occurs during slow laps after a yellow, any cars involved are to be returned to the track position they occupied prior to the incident.

#### 4. Restarts

Passing will be allowed on either side under a "Restart" condition.

#### 5. Checkered Flag

A race will be considered completed at the moment the checkered flag is displayed or at the moment the scheduled distance is completed by any car, whichever occurs first.

All running cars must cross the start/finish line on their lap following the checkered for the race to be properly scored.

Cars not completing the scheduled distance will be ranked in order by total laps completed and the sequence of the finish.

When any race finish order cannot be determined, the track officials will determine the finish. Their decision is final.

#### Black Flag

The flagman will use a black flag only if in his/her opinion a car is creating undue hazard on the track.

The black flagged car must go to the pits until the hazard is resolved.

#### Pit Stops - Refueling - Red / Green Flag Stops

At the time of sign in and registration each entrant will vote for: Red Flag Stops or Green Flag Stops

The entrants of each class will determine how their class will make pit stops during mains. The following rules will be followed for Red Flag and Green Flag Stops.

#### Red Flag Stops

- Drivers can pit anytime under green flag conditions.
- Refueling shall be accomplished at 75-lap intervals under a combination red/yellow-flag condition in all classes. On the 74th lap, a red flag shall be displayed indicating the refueling-stop. All cars will assemble behind the leader and enter the pits in this order. After a 20 second pause during which all cars are refueled, the cars will exit pitlane and when all cars are clear, the green flag will be thrown when the leader is exiting turn four

Note: Any car requiring repairs during a pit stop, must be removed from the pit lane. In the case of Red Flag pit/fuel stops, the car requiring repairs will be pulled from the order in which it entered the pit lane and returned at the back of the field.

#### Green Flag Stops

- Drivers can pit anytime under green flag conditions to fuel and make repairs to their car. If you are committed to pit road before the yellow flag comes out, you may continue with your fuel stop without penalty.
- Drivers may only pit under yellow flag conditions to make repairs or adjustments to their cars. You will NOT be allowed to fuel your car. Their will be a 2 lap penalty for fueling your car under a yellow flag.
- Drivers leaving pit road must use the blend line to re-enter the racing action. Failure to do so will result in a stop and go penalty.
- Pit road speeds will be monitored by a QSAC official appointed at each event. Multiple officials will be appointed for each class. One (1) warning will be given for speeds deemed unsafe by the QSAC official. The second (2) warning will result in a stop and go penalty.
- No two way radios will be permitted.

#### Driver - Pit Crew

Only drivers competing in the specific heat race or main event currently on the track are permitted on the drivers stand. Each driver is limited to one pit person in the hot pit area. A crew member may leave the hot pit area and enter the drivers stand to communicate with the driver for a maximum of three laps and a maximum of two occurrences during the specific heat race or main PAGE 10

event.

Inside the final ten laps of the heat race or main event, no crew member is allowed to enter the driver's stand, regardless of the circumstance.

Two-way radio communication between a driver and crew is <u>NOT</u> permitted in any class.

#### 9. Un-sportsmanlike Conduct

The following actions are considered un-sportsmanlike and will be dealt with in a manner consistent with the policies set forth below.

- Deliberate destructive action on the track during a practice session or race.
- Physical abuse of another competitor, pit person, or Race Official
- Excessive and continuous verbal abuse of another competitor, pit person, or Race Official.

District, Region, or Area Director is empowered to disqualify, at his/her discretion, any competitor guilty of one or more of these infractions. The incident shall be reported to the QSAC board, which will determine if further action should be taken. Depending upon the severity of the infraction, remedies including racing eligibility suspension and/or membership revocation could result.

#### 10. Protests

In the event it becomes necessary, a competitor has the right to sub-

mit a protest. If a protest is submitted, it must clearly and specifically state what is being protested, referencing the applicable rule (s) being violated. Only those issues specifically protested will be inspected or investigated. In the event that a violation is inadvertently discovered during the inspection process that is not identified specifically by the submitted protest, it will be noted, however no penalty would be assessed.

A protest fee of \$25.00 (cash) shall be applicable to each protest submitted. If the ruling is in favor of the protest, the fee will be returned to the protestor. If the ruling is unfavorable, the fee will be forfeited to the host club. In the event of an unfavorable ruling regarding the disassembly of a motor or carburetor, the fee will be forfeited to the protested competitor to offset the cost of re-assembly of his or her equipment

Only a driver in the specific heat race or main event in which the violation or infraction occurred may submit a protest. The written protest, including the cash fee, must be submitted to the Chairman of the Protest Committee, Race Director, or ranking QSAC official present, within ten minutes of the conclusion of the heat race or main event in question. If the specific protest may impact the competitors involved in the next scheduled heat race or main event, that heat race or main event shall be delayed until the protest is ruled on.

In establishing the penalty for a favorable protest ruling, the nature and intent of the infraction and the degree of competitive advantage will be taken into consideration. Penalties may range from a warning to disqualification from the event. Protest rulings are considered final.

#### **ENGINE AND CARBURETOR MODIFICATIONS**

In the pictures to the right (highlighted by the white arrows) are the only two places that you are allowed to modify the motor in order for the carburetor/ phenolic block to fit properly.

For cars that utilize a flat motor plate on the bottom of the chassis for motor mounting, simply shimming the motor, or modifying the plate, will ensure that your motor will fit properly. Any modifications to the motor itself in this regard are not allowed.

Some WYL carburetors (for use in the Sportsmen class), have modifications that must be made to make them usable. There is a small brass ball glued into the top of the carburetor blocking access to the mixture valve. The easiest way to remove this ball is to carefully drill it out and remove it's remains. Walbro assures us that the next shipments of the WYL's will not have this issue.





# QSAC NATIONAL AND DISTRICT CHAMPIONSHIP RACES

Here is a summary of the overall programs. All races will be conducted under QSAC Rules. As a prerequisite, all host tracks will be QSAC sanctioned at least 60 days prior to hosting an event. National and District Championship classes will be Grand National, Super Truck, Sportsman and Sprint Car. The host track, if they choose, will be permitted to allow one "local" or provisional class to participate in an event. The class could be Modified, Novice or even a local Grand National. Entry and fuel fees will be per the following schedule

Class	Entry	Fuel
Sprint Car	\$40	\$5
Provisional Class	\$40	\$10
Super Truck	\$45	\$10
Sportsman	\$45	\$10
Grand National	\$50	\$10

Note: There will be no discount given for a second car.

The fees collected from the entries will be allocated with the host track receiving 50%, the race purse receiving 35% and QSAC receiving 15%. All fuel fees will be allocated directly to the host track unless other arrangements are made prior to the event.

Locations are chosen by a review of eligible locations with an eye toward suitable facilities and geographical distribution. Event location decisions will be a composite of review by the Co-Chairs and the Chairman of the Competition Committee. Considerable care will be given to the scheduling of the events, and their locations, to insure accessibility to the maximum number of competitors from around the country. The National Championship Race will rotate between the Districts in the following order (2004 Central District; 2005 Western District; 2006 Eastern District; and so on). The District Championship Races will be rotated within that District to allow all tracks the opportunity to host an event.

Any deviations from the standard National and District Championship Race format must be submitted in writing to the Competition Committee for approval. Any and all approved deviations from the standard format must be advertised on the respective Race Flyer.

Any track selected to host a National or District Championship event must provide personnel to man the positions of Race Director, Flagman, Scorer, Track Fuel distribution, pre-Race-Tech and post-Race Tech (assistance), minimum of two Race-Spotters, and have Sign Up personnel. The track must supply an entry form (see example on page 11), tech stickers, and paint to mark engines. Please contact the National Tech Director for QSAC fuel bottles and body height gauges. The Race Director or QSAC Competition Committee Chairman will choose a five (5) person protest committee for the event.

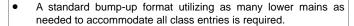
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#### NATIONAL CHAMPIONSHIP RACE FORMAT

The general format of the National Championship Race follows the standard QSAC event formats except as noted below.

- The program must include races for each official QSAC class in which 3 or more cars are present.
- There will be a total of four (4) rounds of heats and then the mains will follow. Heat race length will be 50 laps for eligible classes. On Friday, we will have a Pill Draw or Single Car Qualifying to set the first two (2) rounds of heat races. The heats will be reshuffled after the first two rounds are completed. On Saturday, two (2) rounds of heats will be run. The mains will be set

from all four (4) rounds of heats completed on Friday and Saturday.



•	The number of laps for the mains in each class is shown in the
	ollowing chart:

Main Event Duration (National & District Races)					
Class	A-MAIN	B-MAIN	C-MAIN & DOWN		
Sprint Car	75 Laps	50 Laps	50 Laps		
Super Truck	200 Laps	100 Laps	75 Laps		
Sportsman	150 Laps	100 Laps	75 Laps		
Grand National	300 Laps	150 Laps	75 Laps		

Note: "Support Classes" (those not eligible for awards) shall have the opportunity to race, if there are at least five (5) cars in the class with QSAC approval.

Heat races shall be limited to 30 Laps, and A-mains to 100 Laps, (75 laps for Novice Stock-car).

- A Concourse for each eligible class with an award (trophy or plaque) for the winner is <u>REQUIRED</u> at the National Championship Race. Concourse Bodies need NOT be raced.
- Maximum cars allowed in mains are dependent on safe trackcapacity and computer scoring capability. Standard number cars for the mains is ten (10).
- QSAC will provide awards (plaques or trophies) for 1st, 2nd, 3rd, 4th, and 5th place in all A-Mains of QSAC classes only. It will be QSAC's responsibility to supply these awards.
- The cash payout will follow percentages outlined on Page 5.
- Pill Draw or Single Car Qualifying will begin at 11:00 am on the Friday of the event weekend.
- In the event a driver is not able to participate in the qualifying activities and heat races on Friday, he or she will be entered in the heat races for their class, in the last qualifying position (in the order they registered if more than one driver is involved).
- On initial race starts, there will be no passing before crossing the start finish line.
- On re-starts, passing on either side is allowable only after the green flag has been displayed.
- In the case of a caution all cars involved will drop to the rear of the field with the car causing the incident following the other cars involved.
- If a car is spun out "clearly" after the caution has been displayed, that car will be allowed to retake it's position prior to taking the green flag.
- In the Sprint Car class, only cars complying with the "Sprint Car" rules are eligible for competition (Super Modified cars are not eligible).
- A post race technical inspection of a car and engine from each class shall be mandatory. Such inspection shall include measuring port heights, and all other stipulations of the particular class. Upon completion of each A-main, the top four finishing cars in each class will be immediately impounded by the National Tech Director. The Tech Director will administer a random draw of one of the top three cars to determine who will under go inspection. The track must provide an adequate setting for the post race technical inspection. In the event that post race inspection finds a participant to be outside the rules, another of the top four cars will be chosen for inspection. In the event, that all four impounded cars are found to be illegal, then the fifth place car will be declared the winner. The National Tech Director, QSAC Competition Committee Chairman, and the QSAC Co-Chairs will determine how far an engine will be tore down and inspected.



#### **BACKUP CAR and/or BODY**

- In the case of a competitor's car or body becoming irreparably (as judged by QSAC official) damaged during practice, a heat, or lower-main, a "substitute" car or body may be used to finish the event.
- In either the case of a car and/or body being substituted, it should be understood that should it make the "A" main, the "substituted" car or body will be subject to a combination pre/post-Race technical inspection to insure its total compliance with the rule following the conclusion of the event.
- Any "substitute" car and or body shall start at the rear of the next race it has qualified for.
- The source of the "substitute" car may be the competitor's spare, borrowed from a friend or purchased on the spot.
- The purpose of this rule is to allow a racer, who may have traveled a considerable distance, to compete, rather than just pack-up and go home.

#### TRACK FUEL

- All competitors will be required to use a pre-mixed, host-track provided fuel.
- The fuel specified is VP (brand) C-16, mixed with 2 1/2 ounces of AmsOil Dominator 2-stroke oil per gallon.
- A fuel fee, paid at time of sign-up will be \$10.00 for all classes except Sprint Cars which will be \$5.00.
- Fuel distribution shall be the responsibility of the host-track/club/ promoters.
- Competitors will be able to fuel their cars only in the hot-pit, using fuel-bottles provided.

#### **RAIN OUT RULE**

The host track will make every attempt to complete the event on Friday and Saturday. If the event is delayed due to weather, the schedule will resume on Sunday, starting at the point the event was interrupted.

If the event cannot be completed on Sunday, the rain out format will be used, and finishing positions awarded as follows:

- If qualifying is done by Pill Draw, heat races must be completed before finishing positions can be awarded.
- If only single car qualifying has been completed, finishing positions will be awarded based on qualifying results.
- If only heat races are completed and NO mains are started, finishing positions will be awarded based on heat race results.
- 4. If the mains have started, those mains completed will be scored according to the results. If a main is red flagged prior to reaching the half way point, it will be scored as qualified. If the main is beyond the half way point, it will be considered complete and scored based on the positions at the time of the red flag. If the remaining event is subsequently cancelled, all remaining mains will be scored as qualified.

#### **DISTRICT CHAMPIONSHIP RACE FORMAT**

The general format of the District Championship Race follows the standard QSAC event formats and National Championship Race format except as noted below.

- Pill Draw or Single Car Qualifying will begin at 5:00 pm on the Friday of the event weekend.
- On Friday, we will have a Pill Draw or Single Car Qualifying to set the heat races. On Saturday, there will be a total of two (2) rounds of heats and then the mains will follow. Heat race length will be 50 laps for eligible classes. The mains will be set from the two (2) rounds of heats completed.
- QSAC will donate \$100.00 to the Host track to help with the cost
  of the awards (plaques or trophies). Supplying the awards will be
  the Host tracks responsibility. It is recommended that awards for
  1st, 2nd, and 3rd be presented to participants in the A-mains of
  all QSAC classes. At the very least 1st place awards are mandatory for all A-mains of QSAC classes.
- A Concourse for each eligible class with an award (trophy or plaque) for the winner is <u>OPTIONAL</u> at District Races. Concourse Bodies need <u>NOT</u> be raced.

#### SAMPLE ENTRY FORM FOR NATIONAL AND DISTRICT EVENTS

ENTRY FORM			
Name:Address:	<u>Qualifying:</u> (Please circle one of the following choices)		
Phone Number:E-Mail:	Pill Draw Single Car		
QSAC Membership Number: Class:	<u>Heat Races:</u> (Please circle one of the following choices)		
Frequency 1st Choice: 2nd Choice:	Invert The Heats Straight Up		
3rd Choice: Sponsors:	<u>Fuel Stops:</u> (Please circle one of the following choices)		
	Red Flag Green Flag		

# QSAC CHAMPIONSHIP SERIES This is for a National Championship Series Only \*In 2005 QSAC Will Not Use This Format\*

Here is a summary of the overall program. All races will be conducted under QSAC Rules. As a prerequisite, all host tracks will be QSAC sanctioned at least 60 days prior to hosting an event. The series will consist of five (5) events with the competitors best three (3) finishes being scored for the National Championship Awards. Only competition points will be awarded. Participation points will no longer be used. National Championship classes will be Grand National, Super truck, Sportsman and Sprint Car. Only cash awards will be given at individual events. The host track is no longer required to award event trophies. The host track, if they choose, will be permitted to allow one "local" or provisional class to participate in an NCS event on a nonpoints basis. The class could be Modified, Novice or even a local Grand National. Entry and fuel fees will be per the following schedule

<u>Class</u>	Entry	Fuel
Grand National	\$50	\$10
Super Truck	\$45	\$10
Sportsman	\$45	\$10
Sprint Car	\$40	\$ 5
Provisional Class	\$40	\$10

Note: There will be no discount given for a second car.

The fees collected from the entries will be allocated with the host track receiving 50%, the race purse receiving 35% and QSAC receiving 15%. All fuel fees will be allocated directly to the host track unless other arrangements are made prior to the event.

Locations are chosen by a review of eligible locations with an eye toward suitable facilities and geographical distribution. Event location decisions will be a composite of review by the Co-Chairs and the Chairman of the Competition Committee. Considerable care will be given to the scheduling of the events, and their locations, to insure accessibility to the maximum number of competitors from around the country.

Any deviations from the standard National Championship Series format must be submitted in writing to the Competition Committee for approval. Any and all approved deviations from the standard format must be advertised on the respective Race Flyer.

Any track selected to host a National Championship Series event must provide personnel to man the positions of Race Director, Flagman, Scorer, Track Fuel distribution, pre-Race-Tech and post-Race Tech (assistance), a minimum of two Race-Spotters, and have Sign Up personnel. The track must supply an entry form (see example on page 11), Tech stickers, and paint to mark engines. Please contact the National Tech Director for QSAC fuel bottles and body height gauges. The Race Director or QSAC Competition Committee Chairman will choose a five (5) person protest committee for the event.



#### **FORMAT**

The general format of the National Championship Series follows the standard QSAC event formats except as noted below.

- The program at each event must include races for each official QSAC class in which 5 or more cars are present.
- Points will be awarded for each eligible Class in which at least 5 cars compete. Eligible classes include Grand National, Sportsman Stock Car, Super Truck and Sprint Car.
- A Concourse for each eligible class with an award (trophy or plaque) for the winner is <u>REQUIRED</u>. Concourse Bodies need NOT be raced.
- A minimum of two sets of heats (preferably three) of 50 laps (eligible classes) minimum is required.
- A standard bump-up format utilizing as many lower mains as needed to accommodate all class entries is required.
- Maximum cars allowed in mains are dependent on safe trackcapacity and computer scoring capability.
- Awards (plaques or trophies) for 1st, 2nd, and 3rd place in the Novice Stock Car class is required. It is strongly recommended that at least 1st place trophies or plaques be awarded in each of the other classes.
- For NCS races, the cash payout will follow percentages outlined on Page 5. The 3 highest finishes per competitor will be used to determine their final standing in the Championship. The top 5 in each class at the end of the series will be awarded trophies by QSAC.
- Single car qualifying will begin at 5:00 on the Friday of the event weekend.
- In the event qualifying cannot be completed on Friday due to weather, a pill draw will be completed (Friday night, after qualifying is suspended).
- In the event a driver is not able to participate in the qualifying activities on Friday, he or she will be entered in the heat races for their class, in the last qualifying position (In the order they registered if more than one driver is involved).
- On initial race starts, there will be no passing before crossing the start finish line.
- On re-starts, passing on either side is allowable only after the green flag has been displayed.

Following Lap Count minimur	n format required a	t each event
Sprint Car	A-Main B-Main & Lower	75 Laps 50 Laps
Super Truck	A-Main B-Main C-Main & Lower	200 Laps 100 Laps 75 Laps
Sportsman Stock Car	A-Main B-main C-Main & Lower	150 Laps 100 Laps 75 Laps
Grand National Stock Car	A-Main B-Main C-Main & Lower	300 Laps 150 Laps 75 Laps

Note: "Support Classes" (those not eligible for NTS Points or awards) shall have the opportunity to race, if there are at least five (5) cars in the class with QSAC approval.

Heat-races shall be limited to 30 Laps, and A-mains to 100 Laps, (75 laps for Novice Stock-car).

 In the case of a caution all cars involved will drop to the rear of the field with the car causing the incident following the other cars involved.

- If a car is spun out "clearly" after the caution has been displayed, that car will be allowed to retake it's position prior to taking the green flag.
- In the Sprint Car class, only cars complying with the "Sprint Car" rules are eligible for competition (Super Modified cars are not eligible).
- DISQUALIFICATION: If a driver is disqualified from an event, the event that the disqualification occurred in must be scored in that driver's series total and not used as a "drop".
- A post race technical inspection of a car and engine from each class shall be mandatory. Such inspection shall include measuring port heights, and all other stipulations of the particular class. Upon completion of each "A" main, the top four finishing cars in each class will be immediately impounded by the National Tech Director. The Tech Director will administer a random draw of one of the top three cars to determine who will under go inspection. The track must provide an adequate setting for the post race technical inspection. In the event that post race inspection finds a participant to be outside the rules, another of the top four cars will be chosen for inspection. In the event, that all four impounded cars are found to be illegal, then the fifth place car will be deemed the winner. The National Tech Director, QSAC Competition Committee Chairman, and the QSAC Co-Chairs will determine how far an engine will be tore down for inspection.

#### **BACKUP CAR and/or BODY**

- In the case of a competitor's car or body becoming irreparably (as judged by QSAC official) damaged during practice, a heat, or lower-main, a "substitute" car or body may be used to finish the event.
- In either the case of a car and/or body being substituted, it should understood that should it make the "A" main, the "substituted" car or body will be subject to a combination pre/post-Race technical inspection to insure its total compliance with the rule following the conclusion of the event.
- Any "substitute" car and or body shall start at the rear of the next race it has qualified for.
- The source of the "substitute" car may be the competitor's spare, borrowed from a friend or purchased on the spot.
- The purpose of this rule is to allow a racer, who may have traveled a considerable distance, to compete, rather than just pack-up and go home.

#### TRACK FUEL

- All competitors will be required to use a pre-mixed, host-track provided fuel.
- The fuel specified is VP (brand) C-16, mixed with 2 1/2 ounces of AmsOil Dominator 2-stroke oil per gallon.
- A fuel fee, paid at time of sign-up will be \$10.00 for all classes except Sprint Cars which will be \$5.00.
- Fuel distribution shall be the responsibility of the host-track/club/ promoters.
- Competitors will be able to fuel their cars only in the hot-pit, using fuel-bottles provided.

#### SCORING TIE BREAKER RULE

If the situation occurs that there is a NTS point total tie in any class or finishing position, the following tie breaker (s) will be used in sequence until the tie is broken. (Please note that only the three races being scored in the overall series results are considered in the tie breaking process).

- 1. The competitor with the most 1st place finishes would prevail.
- If the tie remains, the competitor with the most 2nd place finishes would prevail.
- If the tie remains this process would follow sequence until the tie is broken.
- 4. If after consideration of the series race results the tie remains, QSAC will default to the qualifying lineup for the scored "A" Mains (scored is defined as the three races used by each competitor for the series total).
- 5. The competitor with the most "Pole" positions would prevail.
- If the tie remains, the competitor with the most 2nd starting positions would prevail.
- If the tie remains this process would follow sequence until the tie is broken.

If after consideration of the series qualifying results the tie remains, QSAC would default to the last race in which the tied competitors competed against each other and the tie will be broken by the highest finishing driver in that race prevailing.

#### **RAIN OUT RULE**

The host track will make every attempt to complete the event on Saturday. If the event is delayed due to weather, the schedule will resume on Sunday, starting at the point the event was interrupted.

If the event cannot be completed on Sunday, the rain out format will be used, and points awarded as follows:

- If qualifying is done by Pill Draw, heat races must be completed before points can be awarded.
- If no qualifying or heat races have been completed, the event is cancelled and all entrants will be awarded 5 participation points.
- If only single car qualifying has been completed, points will be awarded based on qualifying results.
- If only heat races are completed and NO mains are started, points will be awarded based on heat race results.
- 5. If the mains have started, those mains completed will be scored according to the results. If a main is red flagged prior to reaching the half way point, it will be scored as qualified. If the main is beyond the half way point, it will be considered complete and scored based on the positions at the time of the red flag. If the remaining event is subsequently cancelled, all remaining mains will be scored as qualified.

#### **TECHNICAL COMPLIANCE RESPONSIBILITY**

It is the responsibility of each driver to insure his/her Quarter-Scale Race car is in total compliance with all applicable QSAC Rules. This means Safety, General and Technical Specifications as defined herein. It is important that each competitor read and understands all of the rules as they apply to safety, race format, driver-conduct, and technical specifications. Ignorance of the Rules is not a defense for violation of them. Failure to comply may result in immediate disqualification, loss of points for the event, and further action as deemed necessary by QSAC.

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**GENERAL SPECIFICATIONS** (applies to all classes unless otherwise noted in the individual class specifications).

- 1. The general specs contained herein shall be enforced for each class except where the class Technical Specifications conflict. In such case the class Technical Specifications shall take precedence.
- All cars must meet the general specifications, the safety requirements and the technical specifications for its class. Modification (except engine) is permitted within the specifications but will be subject to review and approval by QSAC.
- 3. Situations may upon occasion arise that are not precisely covered in these rules or procedures. A ruling will be made by the ranking QSAC official present, consistent with previous rulings in situations of similar nature. The ranking QSAC official present shall make interpretations of rules and his/her rulings shall be considered final.
- 4. All classes are subject to fuel line specifications (line length, size, return and vent lines) as defined in the Grand National Technical Specifications.

#### **ENGINE**

- 1. Only industrial type, 2-stroke, magneto ignition, 23cc maximum, air cooled, integral starting engines will be allowed. The use of any engine must be approved by the QSAC National Rules Committee 4 weeks before said engine may be raced in any QSAC sanctioned event. No rotary valve, reed valve, or non-integral cylinder head engines allowed.
- To obtain approval, a minimum of 5 engines must be submitted to QSAC along with factory specifications and technical data pertaining to performance, as well as a supply of gaskets, etc. to facilitate disassembly for inspection and reassembly for testing.
- 3. Approved engines are as follows: Zenoah G2D-44, 57 (Red Max HT230), Zenoah G2D-70, (all versions) Zenoah G-23RC/G230RC. Kawasaki TF22 (All engines must have factory numbers).
- 4. There is no engine "Claiming" Rule.
- 5. Engine replacement parts other than those supplied by the original engine manufacturer will be considered as not-legal parts. One exception will be crankshaft bearings as noted in item #6.
- 6. Since the supply of OEM crankshaft bearings is questionable, equivalent type bearings will be allowed. The replacement must be a metallic ball bearing, non-shielded or non-sealed.
- 7. Modifications NONE no removal or addition of parts or material from engine or from any part of component of engine whether or not performance is enhanced. Media blasting of any portion of the cylinder or internal engine components is not allowed for any purpose. The only exceptions are listed on page 9. The exhaust, carburetor, and clutch are not considered part of the engine and will have their own set of rules.
- 8. All pre-manufactured gaskets made specifically for the Zenoah engines will be legal. Scratch built gaskets will <u>NOT</u> be legal. Exceptions are noted in item #9.
- 9. On all engines, any type of gasket sealant, provided it can be easily removed during the tech inspection process without damaging the mating surfaces of the engine compo-

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the mating surfaces of the engine components, may be applied to either or both sides of the gasket located between the cylinder and the phenolic intake block. In addition, on the G230RC engine only, gasket sealant may be applied to either or both sides of the gasket located between the cylinder and crankcase.

#### **EXHAUST**

- 1. All engines shall have chambered exhaust system that effectively reduce noise. No open exhaust or un-chambered open pipes are allowed. Any car deemed too loud by officials will not race until the problem is corrected. Maximum noise level is 85 DBA 30 feet from the track surface whenever a noise limit is in effect. Noise limits are imposed by local ordinance or at the discretion of the promoter. Certain classes require stock Zenoah Mufflers only. (See appropriate class specifications.)
- 2. All Classes must use Zenoah Mufflers p/n's 1751-15101 or 1148-15112 unless otherwise noted in the individual class specifications.
- No spacers or extensions between cylinders exhaust port and muffler.
- 4. Only one exhaust gasket is permitted.
- 5. Stingers may not be added to the muffler outlet.
- 6. The spark arrester screen may be removed.
- 7. Exhaust may be redirected by use of a piece of 1.00 inch (ID) or larger hose or tube.
- 8. Any tuned expansion chamber exhaust systems (Open-Wheel only) regardless of material of construction, must meet the QSAC mandated noise level limits as defined in general section #1, (85db at 30ft.) when a noise limit is required by the track owner, promoter, or by local ordinance.

#### **CARBURETOR**

- 1. The WYK-61 Carburetor shall have a 9 mm maximum bore, all other Carburetors will have a .425 inch maximum bore.
- 2. Only the Walbro WY-1 Series, (-1, -16, etc), the WYK 32, 51, 61 and the WYL 99, 79 or 78 Carburetors are allowed. (The Sportsman class may only use the WYL carburetors).
- 3. Carburetor jets may be changed, popet-valve (needle/seat) may be adjusted, popet valve (spring) may be modified and adjusted, but no other modifications are permitted.
- 4. Both the #34-509 (aluminum barrel) and #34-514 (phenolic barrel) are approved replacement barrel valves for the WY-16 carburetor.
- 5. Note: It continues to be Illegal to modify EITHER side of the Phenolic carburetor block, or to alter the size of the openings in the block

#### CLUTCH

Clutches must maintain a standard two-shoe, single-spring, centrifugal configuration, with no external adjustment capability. Clutch shoes may be aluminum or steel and may be lightened. Clutch arbor, clutch bolts, clutch spring, and clutch housing may be modified or lightened. Stock clutches, including springs and shoes, <u>MUST</u> be used in the Sportsman class.

#### **IGNITION MODULE**

Ignition modules are limited to those supplied with the engine or two aftermarket modules with markings of SIG-01 or EY850 only. All modules must have the factory applied date code.

#### **FUEL**

- 1. Only straight pump gasoline is allowed. Fuel additives are <u>strictly prohibited</u>. Racing gasoline may be used if it is available on a national level. Example: Cam-2, Klotz, VP, Torco, etc.
- 2. The use of methyl alcohol / methanol is not allowed.

#### **FUEL SYSTEM**

- 1. All classes will use a maximum 8oz capacity fuel tank.
- 2. All classes are limited to a maximum of 50 inch total fuel line length which includes a maximum of two .125 inch ID x .50 inch OD x 1.00" long fuel filters, fill, feed, return and vent lines. Tubing located inside the primary fuel tank is excluded.
- 3. The fuel system must vent out the right side of the car to allow overflow fuel to be discharged toward the pit wall.
- As an option, a maximum 2oz catch tank may be installed on the primary tank vent line. The catch tank may not have a fuel pick up mechanism.
- 5. All fuel lines and filler lines must be .125 inch maximum ID.
- 6. Only one vent line and one filler line permitted.
- Refilling bottle shall be a 1-quart maximum size. Manual pressurizing only during refilling.

#### **CAR NUMBERS**

- Each car shall be clearly numbered and visible from the scoring stand. Numbers must appear on both sides of the car, except when special scoring numbers are used. Car numbers placed on wings must have additional identification should the wings become detached while racing.
- 2. Minimum number size is 3.00 inches for open wheel cars, 4.00 inches for full-bodied cars and trucks.

#### **CHASSIS**

- 1. No shifting or variable speed drive trains permitted.
- 2. All cars must have 4-wheel suspension.
- 3. Engines must be mounted with either the spark plug or crankshaft centerline on the car longitudinal centerline of the chassis' main rails with a tolerance of plus or minus .50 inch. Main rails are defined as the major symmetrical load carrying longitudinal frame members, and do not include "side pods" used for body mounts.
- 4. Differentials permitted in all classes.
- 5. Two-wheel drive (rear) only.
- 6. Basic frames must be symmetrical in design.
- 7. Mainframe rails should be mirror image left to right with minor deviations for component clearance allowed.
- 8. Suspension components may be modified in material to achieve lighter weight and/or greater strength.
- No cantilever suspension allowed.
- Cars must maintain a 50%-50% weight bias plus or minus 10%, left to right.

#### **TIRES AND WHEELS**

- 1. Wheels and tires may be substituted and modified within the specific class requirements.
- 2. Maximum wheel width 3.00 inches, maximum diameter 4.00 inches (at the bead).
- 3. Wheels must be scale appearing with a maximum offset of 1.00 inch.
- 4. Wheel knockoffs are not allowed with the exception of the open wheel classes.
- All wheels must have minimum 2 lugs.
- 6. All classes shall use tire configurations as follows: A foam host mounted on an approved wheel and shall have a rubber outer band or cap. No spikes allowed.
- 7. No tire cleaners or tire traction treatments permitted. Tires may be cleaned with soap and water only.
- 8. Track preparation to improve traction is permitted.
- 9. Tire circumference (roll-out) is measured as an average of the

center and outside edge measurements. This measurement shall be 22.00" maximum and 17.00" minimum (LF, RF, RR) and 16.75" minimum (LR).

- 10. For open wheel classes, the 17.00" minimum applies only to the right rear tire.
- 11. Maximum tread width is 3.25 inches, with a minimum tread width of 2.75 inches, and 3.75 inches maximum sidewall width.
- 12. Competitors in all Stock-Car and Super Truck classes must utilize the QSAC approved right front tire-bands on the competitor's choice of host.
- 13. Right front tire bands will have a unique (molded into the band) identifier to designate it is an "Approved" tire band.
- 14. Approved compounds as submitted by the manufacturers are as follows:

#### • Bishop Racing Products (BRP)

- Left Front/Left Rear = L10, L20, L30
- Right Rear = 410, 405, C-4. And C-5
- Right Front = 66 or 96 (F45 split band approved for Sportsman Stock Car and Sportsman Novice Stock Car classes only.)

#### WCM Diamondback

- Left Front/Left Rear = RZ2, ZR, XZR
- Right Rear = M3, M4, Signature
- Right Front = A or B

The above are the ONLY allowable compounds permitted and can ONLY be run where designated. (Example: Approved Right Rear compound on Right Rear only)

#### **MISCELLANIOUS**

- 1. No electric or electronic device may be used in any class unless specified in the Technical Specifications for that class. Examples: rate gyros, moveable ballast, any electronic or electrical adjustment device other than two steering and one throttle/brake servo.
- 2. One battery powered tool per pit-position is permitted for changing of tires, etc., during a race.
- 3. On-board tachometers are permitted in all classes.
- 4. Onboard telemetry is NOT permitted in any class.

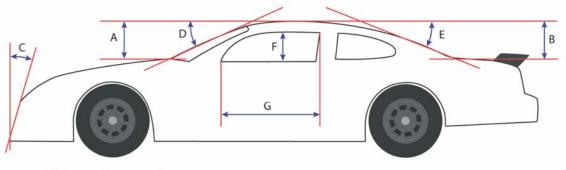
#### **IMPACT PARTS**

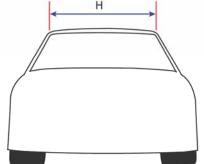
Impact Parts are defined as parts or components that are uniquely critical to the competitive operation of a quarter scale race car. They are further defined as items where significant technical developments and/or enhancements might possibly render the previous version of the part or component obsolete or non-competitive or represents an excessive cost versus benefit to the racer. The current list of IMPACT PARTS includes but is not limited to, engines, carburetors, clutches and components, brakes and components, shock absorbers, tires, hosts and bands and bodies.

Manufacturers are urged to submit in writing, parts or components that fall into this category, to the Impact Parts Committee Chairman for review and disposition as to the legality for competition under QSAC rules.

#### ATTENTION POTENTIAL BODY MANUFACTURERS

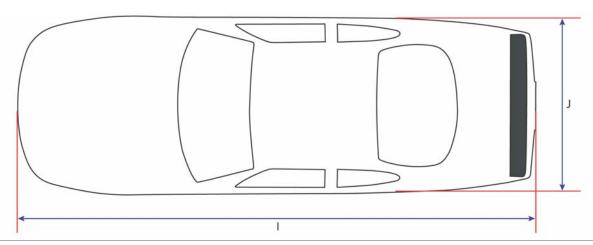
If you intend to manufacture a "new" Quarter Scale Race Body (Car or Truck) it is strongly recommended that you contact the QSAC Impact Parts Committee *BEFORE* you begin the project, to insure the final product will be within acceptable parameters for approval for QSAC Competition.





Stock Car Body Dimensions:

- A: Roof height Measured at base of windshield. A+B minimum of 5.50"
- B: Roof height Measured at base of rear window. A+B minimum of 5.50"
- C: Angle of front lower air dam. Maximum of 25 degrees from vertical
- D: Angle of windshield measured at center. Minimum angle of 22 degrees.
- E: Angle of rear window measured at center. Minimum angle of 15 degrees
- F: Height of side windows. "Recommended" minimum of 3.312"
- G: Length of side windows. "Recommended" Minimum of 8.00"
- H: width of roof. Minimum of 11.25"
- I: Overall length: 44.00-49.00"
- J: Overall width: 17.50-19.50"



#### **QUARTERSCALE CAR and COMPONENT MANUFACTURER & AFTER MARKET LISTING**

#### DANNY'S 1/4 SCALE RACE CARS

Glendale, Arizona Phone: 623-878-8130 Website http://www.dannysqscale.com

#### **GRAM CRACKER RACE CARS**

Lake Worth, Florida Phone: 561-586-1555

#### LIGHTNING QUARTER-SCALES

Highland, California Phone: 909-862-1001 Website http://www.lightningrc.com

#### LOVE'S PRECISION RACE CARS

Nuevo, California Phone: 909 928-1518 or 909-928-2268

#### PRO1 RACING

Konawa, Oklahoma (713) 775-4269 Website http://www.pro1z.com

#### WCM CORPORATION

Madisonville, Texas Phone: 936-348-5057 Website http://www.wcm-corp.com

#### **BISHOP RACING PRODUCTS**

Springdale, Arkansas Phone: 501-751-6232

#### **Bob Elliott's "A CUT ABOVE"**

Bettendorf, Iowa Phone: 563-355-5787

#### **HADA Shock Absorbers**

Machesney Park, Illinois Phone: 815 282-1311

#### **QUARTERSCALE MOTORSPORTS**

Rancho Cucamonga, California Phone: 800-266-7745 Website www.quarterscalemtrsports.com

#### HOOD'S HOBBIES

Phoenix, AZ. Phone: (602) 509-1414 Website www.HoodsHobbies.com

#### **ACE ROSSI MOTORSPORTS**

Lakeland, FL.

(863) 853-8532 eves or (863) 559-9067 Website www.acerossimotorsports.com



#### **TECHNICAL SPECIFICATIONS**

#### **GRAND NATIONAL STOCK CARS**

Minimum Height 10.50 inches

• Overall length 44.00 - 49.00 inches

• Wheelbase 25.00 - 27.00 inches

• Overall width\* 17.50 - 19.50 inches

Track Width\*\*
 16.50 - 19.25 inches

Weight 30 pounds - minimum

\*\* Track width is defined as "outside of tires". Track width differential front to rear may not exceed 1.50 inches at any time.

Unless otherwise listed below, all other specifications from the General Specifications apply.

#### **BODIES**

- Cars must appear as NASCAR Grand National or Winston Cup cars, must be attractively painted and have and maintain a scale appearance.
- Cars must have windshields front and rear either as cutouts replaced with another solid plastic material or as outlines painted as windows with a contrasting color.
- No lightening or ventilating of the body except as in the car's full size counterpart (grill opening, windshield cowl, etc.). No holes allowed in the rear of the body.
- 4. Wheel openings must be full cutouts.
- 5. No underbody ground effects.
- Roof rails, allowed as molded-in by body manufacturers, may not exceed .25 inches in height.
- Belly-pans limited to 208 square inches. No full width belly-pan extensions forward of the front wheels or behind the rear wheels.
- 8. Add on rear spoilers may not extend more than 3" in any direction from the factory deck as measured at the back edge of the rear deck. Spoiler may be of any material, but all edges must be rounded and smooth. The spoiler must be mounted on the rear of the body (just like the full scale version) not on top of the rear deck
- No bends or lips on the top or ends of the spoiler allowed. (Also applicable to Sportsman, Novice Stock-car, and Super-Truck).
- Body's rear bumper flange may not be trimmed to less than 1" from the molded bumper as measured from the inside of the flange.
- The top surface of the front and rear bumpers must be at or above the wheel centerline.
- Foam bumpers (front or rear) must maintain a minimum of .50 inch ground clearance during full compression of the suspension.
- 13. Engine exhaust may be routed through a single 1.25" diameter cutout, located in the side of the body between the front and rear tires and below the centerline of the front and rear axles. The cutout must not interfere with the cars side number (s). No exhaust ductwork shall extend beyond the body.

#### CHASSIS

- 1. Cars must have independent A-Arm type front suspension.
- A-Arm mounting points must be equal-distance from the chassis centerline.
- Lower control arms must be of equal length (plus or minus .125 inch) as measured from the centerline of the inner mounting point to the centerline of the ball-joint.

#### **ENGINE**

Engine Zenoah G2D-70 (both two-ring and single-ring versions),

and the Zenoah G23RC/G230RC (versions A & B) are allowed.

2. Engines must be as manufactured, no mixing of components between versions or up-rated -44, 57 -cylinder 1148-12111 (to the 2HP version) may be used. Example: You cannot use a two-ring piston with a single-ring cylinder or a single-ring piston with a double-ring cylinder. The G-23RC / G230RC (versions A & B) have interchangeable parts. Each version will have its own set of specifications and will be checked accordingly. Example: Version A engine with a version B cylinder will be teched as a version B engine. If your engine has version B parts it will be teched as a version B engine. If you have any questions please contact the National Tech Director Randy Brown @ (517) 641-4452.

#### CARBURETOR

The Walbro WY-1 Series, (-1, -16, etc) or the Walbro WYK Series (32, 51,61) carburetors are allowed in the following configurations:

WYK-61-1 carburetor only.....One (1) gasket only is legal

WYK-32-1 carburetor with 9mm plate.....Two (2) gaskets are legal

WYK-51-1 carburetor with 9mm plate.....Two (2) gaskets are legal

<u>Note</u>: Bob Elliott will manufacture all QSAC legal 9mm plates with an identifiable "QSAC" stamped into the plate. Bob has offered to donate these plates for QSAC membership use. Track owners and club presidents, please contact the National Tech Director Randy Brown @ (517) 641-4452 for plate shipments for your local club members. QSAC will pay for shipping to clubs and tracks.

#### **TIRES**

Tires must fit within the car's body.

#### **FUEL**

Gasoline only

Weight

# TECHNICAL SPECIFICATIONS SPORTSMAN STOCK CARS SPORTSMAN "NOVICE" STOCK CARS

Minimum Height 10.50 inches

Overall length 44.00 - 49.00 inches
 Wheelbase 25.00 - 27.00 inches
 Overall width\* 17.50 - 19.50 inches
 Track Width\*\* 16.50 - 19.25 inches

\* Overall width is measured at the car's widest point

30 pounds - minimum

Unless otherwise listed below, all other specifications from the Grand National and General Specifications apply.

#### Engine, Carburetor, Filter, Velocity Stack:

- A. G2D-44 / 57 cylinder on G2D-70 cases, or G2D-44/57 base engine, G2D-70, G-23RC/G230RC (A & B) with QSAC approved air filter adapter (replaces velocity stack) allowed. Limited to WYL 99, 78, and 79 carburetors.
- Sportsman competitors may run only that class if entered as a Sportsman in an NTS, National, District, or Region event.
- The BRP F45 (split band) right front tire may also be used in this class.
- Sportsman Novice class is an entry-level class for drivers new to Quarter-Scale racing.
- Competitors in the Sportsman Novice class may not participate in any other class while remaining a novice. Further, once leaving the novice class to progress to a "Pro (cash payout) class", he/she may not return to Novice unless approved by the

QSAC Area, Region, or District Director, and his "home track" club

<sup>\*</sup> Overall width is measured at the car's widest point

<sup>\*\*</sup> Track width is defined as "outside of tires". Track width differential front to rear may not exceed 1.50 inches at any time.

 Competitors in the Sportsman Novice class will receive trophies or plaques only, no cash awards.

#### NOTE:

The QSAC approved air filter adapter is available from Fred Murry. The cost is \$15.00 plus shipping and handling. Contact Fred at (937) 291-9225

Drivers can not compete in GN and Sportsman at the same event

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# TECHNICAL SPECIFICATIONS SUPER-TRUCK

Minimum Height 11.75 inches

Overall length 44.00 - 49.00 inches
 Wheelbase 25.00 - 27.00 inches
 Overall width\* 21.50 inch Maximum
 Weight 30 pounds - minimum

\* Overall width is measured at the car's widest point

# Unless otherwise listed below, all other specifications from the Grand National and General Specifications apply.

- Trucks must appear as current NASCAR Super-Trucks, must be attractively painted and have and maintain a scale appearance.
- Trucks may use the Raco Stadium Truck Body, the PRC NAS-CAR Super-Truck Body, or subsequent Super-Truck body approved for use by QSAC.
- Must have windshields front and rear either as cutouts replaced with another solid plastic material or as outlines painted as windows with a contrasting color.
- Maximum spoiler is 3.00 inch measured in any direction from top
  of rear deck, any material, but corners must be rounded and
  smooth with no sharp edges. No bends or lips at top or sides of
  spoiler allowed.
- 5. On certain chassis, roll bar and/or spark plug interference prevents seating the Super-Truck body properly on the front and rear bumpers. To alleviate this interference, it is permissible to cut out the body, using Slot-type relief's for roll bars and a rear-window/deck cut-out for the sparkplug. In both cases, such cuts must be kept to an absolute minimum. If, during pre-race tech, cutouts are deemed to be excessive, the competitor may be required to temporarily fill part of the cutout using duct-tape or other material.
- Engine must conform to the Stock Car and General specifications



#### **TECHNICAL SPECIFICATIONS**

#### SPRINT CAR

#### **SUPER-MODIFIED**

Overall length 32.00 - 40.00 inches
 Wheelbase 20.00 - 23.00 inches
 Overall width\* 20.50 inches Maximum

\* Overall width is measured at the outside of tires

Weight\*\*

Unless otherwise listed below, all other specifications from the Grand National and General Specifications apply.

22 pounds - minimum

#### SPRINT CAR-

- 1. Sprint Cars must resemble "World Of Outlaw" or USAC cars.
- Mean center of frame to outside of any tire not to exceed 10.00 inches.
- Wheels must be scale appearing 3.75 inch diameter (at tire bead), plus/minus .25 inch.
- Right rear minimum tire circumference (rollout) of 17.00 inches before and after race.
- Exhaust systems outside the perimeter of the basic chassis must be located below the level of the top main chassis rail (not roll cage) and within the perimeter of the left or right side nerf bar.
- The exhaust system may not extend beyond the rear axle. If the pipe IS within the perimeter of the chassis, then it may extend beyond the rear axle, but must be within the confines of the rear body/tank shell.
- All cars shall be straight axle, front and rear. This is to mean no independent suspensions.
- 8. Cars must have scale appearing right and left side nerf bars and shall not extend more than .75 inches outside the tires. If a front bumper is used, it must be scale appearing, it must be no wider than the main frame rails, and it shall not extend more than 2 inches from the front of the main frame. If a rear bumper is used, it must be scale appearing.
- Top wing shall not exceed 12.50 inches wide and 16.00 inches long.
- Overall sideboard height, 7.00 inches, length 18.00 inches. Front wing 8.00 inches wide and 6.00 inches long.
- 11. Car numbers must appear on both sides of the top wing and tail tank, minimum 3 inches high, and must be clearly visible from scoring stand during race.
- 12. Engine must conform to the stock car and general specifications.
- 13. Zenoah G2D-70 (2HP) G-23RC / G230RC (versions A & B) must use the Standard Muffler and use gasoline only.
- The Walbro WY-1 Series, (-1, -16, etc) or the Walbro WYK Series (-32, -51) Carburetors are allowed.
- 15. Tire Widths as follows: LF & RF: 2" min. / 2 3/4" max.; LR: 2 1/2" min. / 3" max.; RR: 3" min. / 4" max.

#### SUPER MODIFIED-

- Cars must resemble eastern or western style full size open wheel super modified bodies.
- 2. Front hoods are mandatory, tail sections optional.
- 3. No full bodies
- Front and rear bumpers required but may not exceed the car's track width.
- 5. Mean center of frame to outside of the rear tire not to exceed 10.25 inches.

<sup>\*\*</sup> Before and after race

- Top wing maximum size (including sideboards) 16.00 inches long, 12.50 inches wide maximum.
- 7. Sideboard height is 7.00 inches overall and 18.00 inches long.
- 8. Front wing maximum size is 6.00 inches long, 8.00 inches wide.
- 9. Body parts may be airfoil in design.
- 10. Any wing material may be used.
- 11. Sideboards must be flexible with no sharp edges.
- 12. Exhaust systems may be mounted outside the car's frame but within the length, width and height of the car.
- 13. Right and left side nerf bars or equivalent are required but may not extend beyond the outside edge of the tires.
- Minimum right rear tire circumference of 17.00 inches before and after race.
- 15. Engine must conform to the stock car and general specifications.
- Zenoah G2D-70 (2HP) , G-23RC / G230RC (version A & B) must use the Standard Muffler.
- The Walbro WY-1 Series, (-1, -16, etc) or the Walbro WYK Series (-32, -51) Carburetors are allowed.

#### **ENGINE TECHNICAL INSPECTION**

The QSAC engine rules are written to mean absolutely no engine modification is permitted and includes specifically that the addition or removal of material is not allowed. The rule as written and currently enforced is one of the foundation blocks of QSAC and Quarter Scale Racing. The publication of this procedure is meant as a method for contestants to check their own engines for compliance to the rules. It is not meant as a guide for "blueprinting" an engine within the parameters. An engine found to be altered, even though it may measure legal, will be disqualified and the altered parts will be confiscated and destroyed.

To perform the procedure, a 2.00 inch stroke dial indicator and a spark plug hole adaptor will be needed. The carburetors, carburetor mounting block, exhaust system, and flywheel cover must be removed. All the measurements are based on the downward stroke of the piston from the top dead center as the flywheel is rotated counter-clockwise when viewed from the flywheel end of the engine. There are five measurements that, performed as instructed below, will determine:

- 1. Intake Port Timing Full Open
- 2. Intake Port Timing Start Open
- 3. Intake Port Timing Maximum Port Window Size (height)
- 4. Exhaust Port Timing Start Open
- Crankshaft Stroke

#### **EAST-COAST MODIFIED**

- The Rules for this class duplicate the chassis requirements of the Grand National, and will utilize a Body resembling the "DIRT" Modified-Cars as run on the East coast, or the IMCA Modified cars used elsewhere in the country.
- A molded body for the class may be available in the near future; in the meantime, hand-fabricated bodies will continue to be acceptable.

#### **DRAG RACING**

- Track Sanctioning shall be per QSAC requirements.
- Contact Ken Jones @ (909) 350-9952 or Mike Moore at (513) 742-0280 for info on specific classes and class rules.

#### PROCEDURE:

#### **INTAKE PORT - FULL OPEN**

After finding top dead center and setting the dial indicator at zero, rotate the flywheel counter-clockwise until the piston skirt just enters the intake port at the top. Note the measurement and refer to the chart.

**IGNITION TIMING--** (G2D-44 & 70) Rotate the flywheel counterclockwise, align forward leg of the coil with the forward edge of the 2nd or center flywheel magnet-- check alignment carefully-- read dial/refer to the chart. (G23-RC/G230RC) — Rotate the flywheel counterclockwise, the leading edge of the first magnet lines up with the back edge of the coil -- check alignment carefully-- read dial/refer to the chart.

#### **INTAKE PORT - START OPEN**

Rotate the flywheel counter clockwise till the piston skirt fully closes the intake port at the bottom. Refer to the chart.

#### **INTAKE PORT - MAXIMUM PORT HEIGHT**

The maximum intake port height (roof to floor) may not exceed .345, as measured by subtracting the intake port - full open figure (.015 or more) from the intake port - start open figure (.372 or less)

#### **EXHAUST PORT - START OPEN**

Rotate the flywheel counter clockwise till the piston crown begins to open the exhaust port at the top. Refer to the chart.

#### CRANKSHAFT STROKE

Rotate the flywheel counter clockwise to bottom dead center. Refer to chart

Specifications	G2D-44	G2D70 (2-ring)	G2D70 (1-ring)	G-23RC/G230RC "A"	G-23RC/G230RC "B"
Intake-port, Full-open (IPFO)	.015 or more	.008 or more	.060 or more	.065 or more	.080 or more
Intake-port, Start-open (IPSO)	.372 or less	.415 or less	.465 or less	.480 or less	.510 or less
Maximum port-Window size	.345 or less	.395 or less	.395 or less	.408 or less	.425 or less
Exhaust-port Start-open (EPSO)	.770 or more	.740 or more	.670 or more	.655 or more	.665 or more
Maximum Stroke	1.105 or less	1.105 or less	1.105 or less	1.105 or less	1.105 or less
*Maximum Timing	Open	Open	Open	Open	Open

<sup>\*</sup> There are no timing restrictions for any engine. The stock fly wheel key WITHOUT MODIFICATION must be installed.

#### **QSAC SANCTIONED TRACKS IN 2004**

#### **LAGOON PARK RACEWAY**

2730 Lagoon Park Dr.
Montgomery, Alabama 36109
Website http://lagoonparkraceway.rchomepage.com/
Marlin Wade (334-244-9041)

## TRADERS VILLAGE-HOUSTON TEXAS QUARTER SCALE RACERS

7979 N. Eldridge Houston, Texas 77041 Website http://angelfire.com/tx3/CLeBlanc/ Scott Paluchniak (936-449-5059) E-mail: scott@hgh4us.com

#### **MACHESNEY PARK RACEWAY**

1220 Shappert Dr.
Machesney Park, Illinois 61115
Website http://mpr30.homestead.com/
Gina Pirrelo (815-282-1311) (track)
815-637-6633 (off hours)
815-637-1239 (fax)

#### RIVERFRONT R/C SPEEDWAY

627 Meriweather Drive Fort Dodge, Iowa 50501 Website http://www.riverfrontrc.com/ Jim Patton (515-573-5323)

#### **FUNTYME PARK R/C RACEWAY**

6245 E. Saginaw Blvd, North Lansing, Michigan 48837 Website http://www.nascarrc.com/ Randy Baker (419-726-7467)

#### TIME OUT RECREATION

14999 LaPlaisance Road Monroe, Michigan 48161 Website http://www.nascarrc.com/ Randy Baker (419-726-7467)

#### **ROYAL OAK GRAND NATIONAL**

30963 Woodward Ave. Royal Oak, Michigan 48073 Website http://www.nascarrc.com/ Bryan Plowtkowski- 586-774-1340

#### **VETERANS PARK SPEEDWAY**

Veterans Park
Hwy. 169 & North Park Drive
Algona, Iowa 50511
Rick Klein (515-295-5354)
E-mail: rwwheels@net.Amuma

#### **INGALLS MOTOR SPEEDWAY**

300 Menden Road Ingalls, Indiana 46048 Website http://www.indyquarterscaleracers.org/ Rick Gauger (317-501-4242)

#### **NORTH HOUSTON SPEEDWAY**

11847 Spears Rd.
Houston, Texas
Website http://www.northhoustonspeedway.com/
Scott Paluchniak (936-449-5059)

#### **ROCK RACEWAY**

19117 Highway 365 North Little Rock, Arkansas 72206 Chuck Jamerson (501-888-7517)

#### **BOULDER CITY R/C SPEEDWAY**

1101 Quail Dr. Boulder City, Nevada 89005 Website http://www.qsara.org/ Lance Cote (702-260-1876)

# RIALTO MUNICIPAL AIRPORT QSRC (Quarter Scale Racers of California)

1444 North Linden Ave Rialto, California 92376 Ken Jones (909-987-7745)

#### LITTLE INDY CAR CLUB

5737 Highway 66 Kingman, Arizona 86401 Lance Cote (702-260-1876)

#### DALLAS/FORT WORTH QUARTER SCALE AUTO CLUB

12480 Rendon Road Burleson, Texas 76028 Website http://www.dfwrc.com/ Clyde Dally (817-246-5443)

#### LAKE HAZEL MIDDLE SCHOOL

10965 Camas St. Boise, Idaho 83709 Mike Kenley (208-703-0409)

#### **NORTHWEST R/C SPEEDWAY**

2881 E. Sagemoor Road Pasco, WA 99301 Website http://groups.msn.com/WSQSAC/ Steven Pfister (509-531-2222)





# **QUARTER SCALE AUTO CLUB, INC**

#### **CORPORATE BYLAWS**

**EFFECTIVE: JANUARY 1ST, 1995** 

Revised: October 11th, 2004

### **QUARTER SCALE AUTO CLUB**

#### **CORPORATE BY-LAWS**

#### **Table of Contents**

- I. Preface
- II. Quarter Scale Auto Club By-Laws
- III. QSAC Management Team
  - A. Board of Directors
    - 1. Elections
      - a. Board Co-Chairmen
      - b. Nominations/Ballots
      - c. First Election
    - 2. Non-Fulfillment of Term
    - 3. Impeachment/Dismissal/Appointment
      - a. QSAC CO-Chairmen Impeachment
      - b. Appoint/Dismissal
- IV. QSAC Committee Charters
  - A. Finance
  - B. Rules
  - C. Competition
  - D. Long Range Planning
  - E. Manufacturer's Advisory
  - F. Special Projects
  - G. Sub-Committees
    - 1. Product Review
- V. Field Organization Charters
  - A. District Director
  - B. Region Director
  - C. Area Director
- VI. Supplements
  - A. Organization Chart



#### I. Preface

The Quarter Scale Auto Club (QSAC) is a non-profit corporation chartered in the State of Michigan. QSAC's purpose is to provide a sanctioning body to organize and direct the sport of quarter scale radio controlled racing in the United States.

The primary functions of the organization are to provide establishment and uniform enforcement of safety and competition rules, liability insurance for the membership, and the promotion and growth of the sport through a strong, fair and unbiased management organization.

#### II. Quarter Scale Auto Club By-Laws

The intent and purpose set forth by the by-laws here-in is to establish the formal organization and charter for the Quarter Scale Auto Club, Inc. (QSAC, Inc.) and chartering a strong management team to organize, promote, and stimulate the growth of quarter scale radio-controlled auto racing. The management team shall be entirely voluntary, and shall embrace the "Spirit and Intent" of promoting the sport, and conducting the business of QSAC on behalf of, and for the benefit of, the QSAC general membership. "Spirit and Intent" is defined as the honest governing of the body, free of outside interest or influence either personal or financial, insuring to the general membership the management's' commitment to the betterment of the sport with the general memberships' best interest and concerns at heart. The structure of this organization is detailed in the following pages.

#### III. QSAC Management Team

#### A. Board of Directors

The QSAC Board shall be comprised of two Co-Chairmen, having equal authority and responsibility with regard to the operation of the Sanctioning Body. Each Co-Chair's term shall be two years, with alternate year term expiration. That is, one Co-Chair's term shall expire each year, yielding alternate year term expiration for each Co-Chair. This alternating term expiration will provide continuity of management, meaning that the remaining Co-Chair shall assist the transition of the newly elected Co-Chair to the duties and responsibilities of his office while maintaining an experienced management presence during that transition.

The Co-Chairs will be responsible for selection and appointment of all other management team positions (committee chairmen) as well as administrative positions (secretary and treasurer). The Co-Chairs shall maintain the organizational chain of command and consider the written input of the committees in the decision-making processes of managing the business of the organization. The Board Co-Chairs shall have the ultimate responsibility of, and authority to conduct the business of QSAC, and the Board's decisions shall be final and binding. Requests for funds whether for expense reimbursement or capital expenditure can only be authorized by consensus approval of the Co-Chairs.

#### 1. Elections

- a. The Board Co-Chairmen shall be the only elected officials in the QSAC organization. Election will be held annually, electing one Co-Chair per year, with each fulfilling a two-year term. A Co-Chairman may be elected to as many terms as he is willing to faithfully serve. The "Spirit and Intent" of Board nominations shall be free of conflicting interest, and as such, those persons on record as being industry related suppliers or manufacturers or are considered such by a consensus of the management team shall be ineligible for nominations/election. While there is no implication intended that manufacturers could not "serve faithfully", it is important to limit "undue influence" and level the playing field for all.
- b. It is intended that experience within the organization be a prerequisite for nomination for a Board Co-Chairmanship. As such, eligibility for nomination to the position are limited to currently serving Committee Chairmen, District Directors, Region Directors, and Area Directors. A nominating committee consisting of the two existing Board Co-Chairmen and three members-at-large shall interview all potential candidates from the pool of eligible persons defined in the foregoing, determining each person's ability and willingness to serve. The nominating committee shall then present to the general membership a minimum of one and a maximum of three qualified candidates for consideration. The candidate name or names together with a brief bio will be published each year in the June issue of the newsletter, together with a ballot. The ballot <u>MUST</u> be returned to the QSAC Secretary at the QSAC Information Center not later than August 1<sup>st</sup> in order to be counted.
- **c.** The first QSAC Board Co-Chairman election will take place in 1995. Rotating to the remaining current Co-Chairman in 1996, etc.. The decision as to which existing Co-Chairman will commence the process will be between the existing founding Co-Chairmen.

#### 2. Non-Fulfillment of Term

PAGE 25

If, for any reason, a Co-Chairman cannot complete his/her term, the remaining Co-Chairman

may select a replacement to fulfill the remainder of that term with the consensus approval of the six major Committee Chairmen. Non-Fulfillment shall also include resignation and impeachment.

#### 3. Impeachment/Dismissal/Appointment

#### a. QSAC Co-Chairmen - Impeachment

The mechanism for removal of a Co-Chairman shall be the consensus opinion of the six major Committee Chairmen (Rules, Competition, Long-Range, Special Projects, Finance, and Manufacturer's Advisory) and the remaining Co-Chairman. A Co-Chairman or Committee Chairman must present the petition for a vote of confidence. A resulting "no-confidence" vote would result in the immediate removal of the affected Co-Chairman.

#### b. Appointment/Dismissal

The QSAC Co-Chairmen shall have sole authority to appoint or dismiss any organizational or administrative position in the corporation, including Committee Chairman, District Director, Treasurer, or Secretary.

#### IV. QSAC Committee Charters

The following is a review of the charters of each of the formal Committees within the organization. It is the responsibility of each Committee Chairman to assure the proper execution of the duties of the Committee as defined by the charter of the Committee, and to review the results of the committee's activities with Co-Chairmen on a regular basis.

#### A. Finance Committee

The committee will review the income and expenses of the prior year and, based on revenue projections, make recommendations on budgets for the coming year. The committee will also advise on methods to generate new income sources for the organization, and using recommendations of the Competition and Long-Range Planning Committees, review the organization's capabilities to finance new programs for the benefit of the membership. The committee shall also be responsible to review *proposed* unscheduled or unbudgeted expenditures to determine if resources are available to fund such expenditures. Additionally, the committee will be responsible for the filling of corporate tax returns as required, and the review and approval of the annual financial statement prior to it's presentation to the membership via the QSAC Newsletter.

#### **B.** Rules Committee

The primary function of the committee is to gather input from the Competition, LRP, and Manufacturers' Advisory Committees, as well as District, Region, and Area Director's field, and review and recommend change to the prior year's Rules Package to "fine tune" the Package for the coming racing season/year. Since it is the goal of the organization to maintain a stable Rules-set, absent of massive, disruptive changes from year to year, care must be exercised to consider each proposed change with an eye toward it's impact on the membership, as well as each of the industry manufacturers.

#### C. Competition Committee

The committee shall be responsible to gather input from the other committees, the field organization and the membership at large to determine what changes in safety and race format would be beneficial to the membership and the sport of Quarter Scale RC racing in general. The committee shall also be responsible to serve as a "clearing house" for race dates on the National, District, and Regional schedules, review and resolve possible conflicts and recommend possible additional events. Further, the committee shall review all sanction requests to insure all sanction requirements are met prior to the issuance of a sanction. Key to the function of this committee will be the close, continuous contact with the QSAC Field Organization that is the primary collection point of information and ideas from the general membership.

#### D. Long-Range Planning Committee

The committee shall gather input from all committees and the field organization, and, working closely with the Finance Committee, construct a "rolling" five-year plan. As part of their long-range planning, the committee should formulate plans and methodologies to promote QUARTERSCALE and QSAC on a National, and possibly international basis, develop potential Corporate Sponsorship opportunities, and explore potential mutually beneficial affiliations with other organizations. The committee is the concept group of QSAC, with the responsibility to review and evaluate the ideas and suggestion of QSAC as a whole. All ideas, no matter how seemingly outrageous or impossible, shall be thoroughly reviewed and evaluated. The committee shall work extremely closely with the Special Projects Committee to find ways to promote QUARTERSCALE and QSAC.



#### E. Manufacturer's Advisory Committee

The committee is comprised of all QUARTERSCALE Industry Manufacturers of record on Jan 1 of each year, shall elect its chairman every 3<sup>rd</sup> year, who

will then be responsible to input group consensus recommendation to the appropriate committees for review. The committee shall input to all major committees and shall present thoughtful, well-considered recommendations with the interests of the competitors and manufacturers in mind.

#### F. Special Projects Committee

The committee shall be responsible for public and media relations and shall be the primary developer of Corporate Sponsorships. Compilation and publishing of promotional materials, together with principal contact responsibility with print, radio, and television media shall be the primary function of the committee, in pursuit of continuous effective promotion of QUARTERSCALE and QSAC. This committee shall, as with the other committees, report directly to the Co-Chairmen, who have discretionary authority to fund minimal expenditures this committee may propose. The committee shall "keep its finger on the pulse" of QSAC through regular contact with the other committees and the field organization.

#### G. Sub-Committees

From time to time, the Co-Chairmen may appoint sub-committees or ad-hoc committees to study a particular problem or situation, and make recommendations to the Co-Chairmen or the major committees.

#### 1. Product Review Sub-Committee

Originally empanelled as an ad-hoc committee in February '93, this committee, comprised of the Chairmen of Rules, Long-Range Planning and Competition Committees, chaired by the Competition Committee Chairman, is now a permanent sub-committee of the Competition Committee. The sub-committee is chartered to review and evaluate new products and determine their "impact" on the sport, as well as the applicability and acceptability of the product in relation to the QSAC Rules, including "spirit and intent".

#### V. Field Organization - Charters

The Field Organization is comprised of Area Directors, reporting to Region Directors, reporting to District Directors. It is intended as a field management "team", designed to be the principal point of contact between the National Organization and the general membership. The field organization is the "face" of the National Organization, representing QSAC to the membership and the general public, in most cases presenting the "image" of QSAC, and as such, plays and extremely important role in QSAC.

There are three Districts across the country, each District having from one to three Regions, and each Region having as many Areas as necessary to adequately serve the membership.

#### A. District Director

The District Director is responsible for the coordination of all activities within his/her District. The Director is responsible to assemble his "team" of Region and Area Directors, and has the ultimate authority to appoint or replace subordinate positions as necessary to accomplish the tasks of the District. The District Director position is a direct appointment of the Co-Chairmen of QSAC.

Included within the purview of the District Director are responsibilities for Major event scheduling within the District, and in concert with his peers and the Competition Committee Chairman, resolving event-scheduling conflicts on the national level. Further, he is responsible for providing an open door for the comments and ideas from the general membership, and resolving disputes within the District. The District Director is also responsible to forward, in writing to the appropriate committee or the Co-Chairmen, any problem or dispute irresolvable at the District level or below.

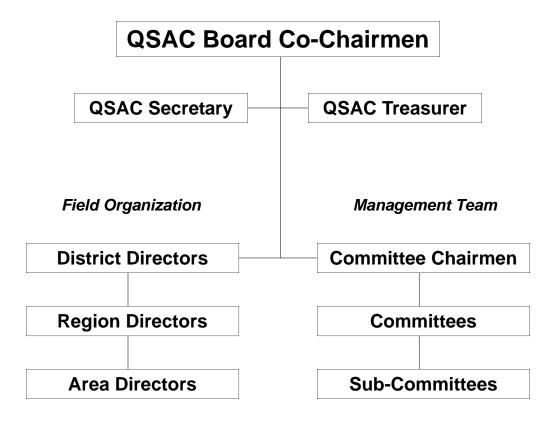
#### **B.** Region Director

Appointed by and reporting to the District Director, the Region Director is responsible for the implementation of plans and programs of the National organization and the District Director within his/her Region. The Region Director is also responsible to identify and appoint able and effective Area Directors to provide direct contact for the membership in areas outside his immediate area. The Region Director has the authority to appoint or replace Area Directors as is required by the needs of the membership in his region. The Region Director is also responsible to forward to the District Director any problem or dispute irresolvable at the Region level or below.

#### C. Area Director

The Area Director is responsible for presenting the "image" of QSAC to the membership and general public, and is the first-level provider of member-services. The Area Director is responsible to the organization and the membership to be the mediator of local disputes and to listen and redirect member input to the Region level and above. He/she is in charge of the interpretation and enforcement of QSAC procedures and rules when he/she is the ranking QSAC official on site. First and foremost, however, is the responsibility to serve the membership in his/her area, and ensure fair and equitable treatment of the membership. The Area Director is also responsible to forward to the Region Director any problem or dispute irresolvable at the Area level.

# QUARTER SCALE AUTO CLUB, Inc. Organizational Chart





# RULE CHANGE SUGGESTIONS FOR THE YEAR 2006

Have you ever complained about a QSAC rule in the past?			
Have you ever stated that the membership should be more involved in establishing the QSAC rules?			
Have you ever stated that the rules favor the Quarter-Scale manufacturers?			
Have you ever?			
Well, here is a very simple form, for you to fill out, fold, tape, stamp and mail to the QSAC official in charge of establishing the rules for the year 2006. If you have a suggestion, a change or a problem with the 2005 rules, please write them down on this page now, before you forget. No matter how small your idea may be, please submit it. With your help in this area, we as a club can make the year 2006 even better. QSAC is a club composed of members and a club's success depends upon it's membership's participation.			
Drint Vour Nama			
Print Your Name			
Your QSAC Membership Number			
This Form must be received by August 1, 2005			

QSAC Rules Committee c/o Scott Schramske 5704 Turtle Lake Rd. Shoreview, Minnesota 55126





#### **OSAC 2005 MEMBERSHIP APPLICATION** (print) Name: (print) Street: (print) City: State: Zip: *OSAC 2005 INEINBERSHIP RECEIP* I (print) Phone No. Fmail Address: PLEASE PLACE AN "X" IN THE BOX NEXT TO YOUR **MAILED DOWNLOADED** SELECTION > > > > **NEWSLETTER NEWSLETTER** Full Membership (Includes full QSAC Insurance) \$50.00 \$40.00 Date\_ 'If applied for at a track) 2nd Family Membership (Includes full QSAC Insurance) \$40.00 \$30.00 Mechanics License (See Note-1) \$20.00 N/A One Day Driver License (See Note-2) N/A \$25.00 Note-1: A mechanics license MUST be obtained through a "Licensed To Race" QSAC member. This license will only permit the holder in the "Hot Pit" area, it will not insure him/her to drive a car. The currently licensed QSAC member sponsoring a Mechanic, MUST list their QSAC number below. QSAC Member number sponsoring this Mechanic License Note-2: The "One Day Driver's License" provides Drivers Insurance for one person for one day or one event and can only be used once per year. The \$25.00 fee can later be applied toward the purchase of a "Full Membership" for the same year. Note-3: The membership period runs from October 31st thru December 31st of the following year. Note-4: NEW membership applications received after July 1st will be valid through December 31st of the same year. The membership fee will be reduced 50%. This policy only applies to NEW, NOT RENEWING MEMBERS and to the Full Membership classification only. Amount Paid Received By Amount Enclosed: Renewal Member ( ) Current QSAC No. New Member ( ) Make Checks Payable To: QSAC Mail To: QSAC, 15166 Center Road - East Lansing, MI 48823

Note-1: Regarding the "One Day Driver's License".

If a driver wishes to enter a second event after they have used the "One Day" license, he or she must then pay an additional \$25.00 or \$15.00 depending upon which newsletter choice is made. This will provide them with a full membership through the end of the year.

It is the driver's responsibility to provide proof of the original "One Race" membership.

Note-2: Membership fees may vary each year.

#### 2005 QSAC Calendar

Mid February.....First Newsletter

Mid February.....First Newslett
April 22<sup>nd</sup> – 23<sup>rd</sup>.....Western D
Northwest R/C Speed
Mid May...Second Newsletter
May 20<sup>fh</sup> – 21<sup>st</sup>.....Eastern Dis
Carolina R/C Speedv
Mid.lune Third Newsletter April 22<sup>nd</sup> – 23<sup>rd</sup>.....**Western District Championship Race** to be held at:

Northwest R/C Speedway in Pasco, Washington

May  $20^{\text{th}} - 21^{\text{st}}$ .....Eastern District Championship Race to be held at:

Carolina R/C Speedway in Easley, South Carolina

Mid June...Third Newsletter

June 24<sup>th</sup> – 25<sup>th</sup>.....QSAC National Championship Race to be held at:

Boulder City R/C Speedway in Boulder City, Nevada

June 24th..... 2005 QSAC Questionnaire handed out at the QSAC National's

\*This questionnaire will be used for mid-season QSAC suggestions and direction

Mid July.....Fourth Newsletter

July 29<sup>th</sup> – 30<sup>th</sup>.....Central District Championship Race to be held at:

Dallas-Fort Worth R/C Raceway in Burleson, Texas

August 1st.....Deadline for 2006 Rule Change Suggestions

August 1st.....Mail out Co-Chair ballot and 2005 QSAC Questionnaire

This questionnaire will go out to all QSAC members and will include suggestions, direction and any QSAC By-Law changes which need to be addressed and voted on.

Mid August.....Fifth Newsletter

September 1st.....Deadline for QSAC Co-Chair ballot

November 16th.....Deadline for 2006 QSAC Race Event Bid Package

December 1<sup>st</sup>.....2006 Rules Package announced December 1<sup>st</sup>.....2006 QSAC Race Locations announced

Mid December.....Sixth Newsletter