



Thunder Bay —
Autosport
Club
Incorporated 1967

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Thunder Bay Autosport Club

2007 Ice Racing Regulations

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**THUNDER BAY AUTOSPORT CLUB
2007 ICE RACING REGULATIONS**

Published by:

Thunder Bay Autosport Club Ltd.
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The regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. By participating in these events all TBAC members are deemed to have complied with these rules and regulations. They are a guide and in no way guarantee against injury or death to participants, spectators or others. No express or implied warranties of safety or fitness shall be intended or result from the publication or compliance with these or any other official regulations.

These regulations may not be reproduced by any means without written permission from the TBAC.

Club Executive

President
Vice President
Secretary
Treasurer
Competition Director

Paul Peterson
Lucas Johnson
Christy Procup
John Sacek
Phil Spicer

Appointments

Chief Steward
Chief Tech Inspector

Peter Dumoulin
Warren Kettering

Table of Contents

1.	Event Organization	5
1.1	Authority	5
1.2	Interpretation of regulations at track side	5
1.3	Race Fees	5
1.4	Officials	5
1.5	Duties of the Chief Steward	5
1.6	Duties of the Chief Tech Inspector	6
2.	Driver Qualifications	6
2.1	Membership	6
2.2	License Requirement	6
2.3	Parental Consent	6
2.4	Proof of Qualifications	7
2.5	Right of Refusal	7
3.	Safety and Conduct	7
3.1	Safety Equipment	7
3.2	Radio Communication	7
3.3	Spills and Litter	8
3.4	Tech Inspection	8
3.5	Insurance and Waivers	8
3.6	Conduct of Drivers and Crew	8
3.7	Alcohol	9
3.8	Narcotics	9
3.9	General	9
4.	Track Layout	9
4.1	Responsibility	9
4.2	Specifications	9
5.	Flags and Marshalling	10
5.1	Marshalling	10
5.2	Flags	10
6.	Grid Positions	11
7.	Starting	11
8.	Restarts	11
9.	Finishing	12
10.	Results	12

11.	Protests	12
12.	Scoring	12
13.	Trophies and Awards	13
14.	Race Schedule	13
15.	Car Construction	13
15.1	General	13
15.2	Bridgestone Blizzak Ice Racing Series (Rubber to Ice Class)	15
15.2.2	General Construction	15
15.2.3	Front Wheel Drive Cars (FWD)	15
15.2.4	Rear Wheel Drive Cars (RWD)	16
15.3	NAPA Auto Parts Ice Racing Series (Studded Class)	16
15.3.2	Classes	17
15.3.3	General Construction	17
15.3.3.1	IIRA Sub Classes	17
	Annex A - RACING HARNESS INSTALLATION	19
	Annex B - ROLL CAGE SPECIFICATIONS	21
	Annex C – RACE DAY SCHEDULE	22
	Attachment A – Article “SFI Foundation Specs Assure Quality Driver Suits”	23
	Attachment B – Article “Snell Memorial Foundation – Helmet Q&A”	26

1. EVENT ORGANIZATION

- 1.1. Authority: The Regulations contained herein have been prepared and approved by the TBAC and reflect the “grass roots” nature of ice racing. Prior to an event interpretation of these Regulations where there might be doubt or ambiguity shall be given by the Competition Director.
- 1.2. Interpretation of regulations at track side: In the event of doubt or ambiguity in the wording and intent of these Regulations and/or Supplementary Regulations, the Chief Steward and the Competition Director shall prevail and be binding upon all parties except as provided under the protest and appeal procedures established by the TBAC.
- 1.3. Race Fees: The TBAC executive shall set the entry fees based on the estimated operating costs for the year (ex. Insurance, ploughing etc.)... The fee may be set at a flat rate per weekend or a fluctuating rate based on the number of entries.
- 1.4. Officials:
 - 1.4.1. The TBAC shall appoint a Chief Steward and a Chief Tech Inspector for the entire ice racing season. The TBAC may appoint an additional person to fill each position “temporarily” in the event of an absence.
 - 1.4.2. The Chief Steward may appoint additional officials as he/she sees a requirement to include, but not limited to, timing and scoring and marshalling/flagging.
 - 1.4.3. The same person may hold more than one position except that the Chief Steward and the Competition Director can have no plurality of duties.
- 1.5. Duties of the Chief Steward:
 - 1.5.1. The Chief Steward shall be present throughout the Competition in order to carry out the specified duties.
 - 1.5.2. The Chief Steward is responsible for executing the Event and other activities safely and in accordance with the Regulations, by controlling Drivers, their Cars, the Officials, and workers from the commencement of activities until the time for protests has expired and shall:
 - 1.5.2.1. Ensure that all relevant Regulations are complied with and that all the equipment needed to do so is at hand or in use as appropriate.
 - 1.5.2.2. Ensure that all required Officials and workers are in place.
 - 1.5.2.3. Ensure that all Officials, Drivers and workers are provided with necessary information.
 - 1.5.2.4. Ensure that any Competitor unable to produce any document necessary to prove his/her eligibility at an Event does not compete without the approval of the Competition Director.
 - 1.5.2.5. Prevent an ineligible Driver or Car from competing.

- 1.5.2.6. Ensure that every accident or incident is reported to the Competition Director and the Chief Tech Inspector.
- 1.5.2.7. Report to the Competition Director prior to the start of the event the conditions of the course and its installations.
- 1.5.2.8. Confirm proof of insurance with the Competition Director.
- 1.5.2.9. Convey to the Competition Director any proposal to modify the Event.
- 1.5.2.10. Receive any protests from drivers and ensure the initiation of the protest procedure.
- 1.5.2.11. Convey to the Competition Director a report of any breach of the Regulations or of any misbehaviour of any Driver, Crew, Official or worker.
- 1.5.2.12. Authorize removal of tech inspection stickers.
- 1.5.3. Upon a minor breach of Regulations the Chief Steward may levy penalties track side as he/she sees fit after consultation with the Competition Director. Serious infractions will be forwarded to the Disciplinary Committee.

1.6. Duties of the Chief Tech Inspector:

- 1.6.1. The Chief Tech Inspector shall ascertain that all Cars comply with the regulations prior to entering the track area. Specifically he/she shall:
 - 1.6.1.1. Check that all Drivers are equipped with the safety equipment required by the Regulations.
 - 1.6.1.2. Conduct inspections of the Cars as requested by the Chief Steward.
 - 1.6.1.3. Report to the Chief Steward any Cars that do not conform with the Regulations.
 - 1.6.1.4. Communicate official information only to the Chief Steward, Competition Director and the TBAC executive.
- 1.6.2. The Chief Tech Inspector shall make a written report of any rejected Cars, including the reason for rejection.
- 1.6.3. The Chief Tech Inspector may appoint assistants as required.

2. DRIVER QUALIFICATIONS

- 2.1. Membership: All competitors shall be full members of the TBAC in good standing. Memberships must be purchased a minimum of one full week prior to a Competitor participating in an Event. Memberships will not be issued at the track.
- 2.2. License Requirement: All competitors must be in possession of a valid Provincial (State) Driver's License.
- 2.3. Parental Consent: Any competitor under the legal Age of Majority in Ontario (18) must have a signed Parental Consent Form.

2.4. Proof of Qualifications: All competitors must be able to provide all required documents on demand from any TABC Official.

2.5. Right of Refusal: The TBAC (and associated organizing bodies) reserve the right to refuse entry of any competitor for non-compliance to these or any applicable Regulations.

3. SAFTEY AND CONDUCT

3.1. Safety Equipment:

3.1.1. All competitors shall wear a helmet conforming to **Snell SA2000, Snell SA2005, Snell SA95, Snell M2000, Snell M2005 or Snell M95**. It is strongly recommend that racers use SA rated helmets for their flammability and roll bar hit ratings. Any helmet showing outward signs of abuse may be disallowed by the Chief Tech Inspector.

3.1.2. It is required that all Driver suits conform to SFI 3.2A specifications.

3.1.3. It is required that all Driver accessories conform to SFI 3.3 specifications.

3.1.4. It is required that all Driver restraint assemblies conform to SFI 16.1 specifications. Restraints must be in good condition.

3.1.5. It is required that all window nets conform to SFI 27.1 specifications.

3.1.6. A fuel cell is defined as consisting of a cross-linked polymer tanks intended for use as a fuel tank in a race car and a metal container as specified herein. Fuel cells designed to comply with SFI28.1 or 28.2 specifications are of optimal design.

3.1.7. Any refuelling of a car must be done with the ignition turned off. The Driver may remain in the car if the refuelling system is equipped with properly installed external filler with breakaway and check ball.

3.1.8. All cars must be equipped with a fire extinguisher of not less than 2¼ lbs. dry chemical (10BC) or equivalent. Extinguishers must be securely mounted using a steel bracket within easy reach of the driver and track workers. Bracket latches must be secured with a perpendicular strip of duct tape (or equivalent).

3.1.9. It is required that each team provide a fire extinguisher of not less than 5 lbs. dry chemical (10BC) or equivalent for their pit area. Extinguishers must be located in plain sight and easily accessible by all.

3.2. Radio Communication:

3.2.1. Radio communication shall be provided at the track for Officials and workers only. Any Driver, Crew or team found to be interfering with official radio traffic will be subject to sanctions by the TBAC.

3.2.2. Teams may use their own radio equipment for car to pit communication only. Radios must be used on a channel other than the official channel. Radios may not be used for car to car communication.

3.3. Spills and Litter:

- 3.3.1. Officials, Drivers, Crews and workers are prohibited from littering or polluting the event area.
- 3.3.2. Special care shall be taken to avoid spills of pollutants. All cars shall have a drip tray that adequately surrounds the engine, transmission and radiator. The drip tray shall be of substantive construction. It is recommended that teams have on hand a supply of “absorbent material” to soak up any spills that do occur. A suitable container to hold used material should also be available. All major spills should be reported to the Chief Steward.
- 3.3.3. Teams failing to comply with the drip tray rule may be asked to remove their race vehicle and or tow vehicle/s from the pit area and may be disallowed from competition for the day.

3.4. Tech Inspection

- 3.4.1. Every car and associated safety equipment along with drip tray (as per rule 3.3.2) shall be presented to the Chief Tech Inspector prior to the first event.
- 3.4.2. Cars need not be re-inspected every weekend but may be re-inspected at any time during any event at the discretion of the Chief Tech Inspector.
- 3.4.3. Cars shall be presented to inspectors in racing trim. General appearance shall be neat and clean with an attempt to maintain this during the season. The TBAC reserves the right to refuse entry of cars not meeting acceptable standards.
- 3.4.4. The responsibility for the mechanical safety of the car rests with the driver.

3.5. Insurance and Waivers:

- 3.5.1. Insurance shall be provided by the TBAC for all events. Insurance shall be purchased through an approved carrier.
- 3.5.2. Proof of insurance must be at each event and available for viewing upon demand.
- 3.5.3. All Officials, Drivers, Crew and workers shall sign the waiver provided by the insurance carrier.
- 3.5.4. No guarantee of the safety of the ice is given or implied by the TBAC, any organizing body, any municipality or any Official of the above.

3.6. Conduct of Drivers and Crew:

- 3.6.1. Any Driver operating his/her car in a unsafe or un-sportsman like manner during an event will be subject to sanctions at the discretion of the Chief Steward including, but not limited to disqualification.
- 3.6.2. Drivers are responsible for their own actions and the actions of their Crew and guests at all times during the event. Drivers may be subject to sanctions

at the discretion of the Chief Steward for any infraction including, but not limited to disqualification.

3.7. Alcohol

3.7.1. No Official, Driver, Crew or worker shall consume alcohol while participating in an event. Drivers are responsible for their Crew and guests and will be subject to disqualification for any infractions.

3.8. Narcotics

3.8.1. No Official, Driver, Crew or worker shall be under the influence or in possession of any illegal narcotic. Drivers are responsible for their Crew and guests and will be subject to disqualification for any infractions.

3.8.2. Any persons found in violation of this regulation will be reported to the local police.

3.9. General

3.9.1. Rubber to Ice and Studded cars shall not practice nor race together.

3.9.2. All cameras and recorders mounted in any competing car must be approved by the Chief Tech Inspector.

3.9.3. Drivers are to maintain a safe and controllable speed in the paddock at all times. All practice and warming up is to be done on the track in sessions provided for the purpose.

3.9.4. Drivers may not exit their cars while on the track for any reason excepting fire. Drivers of cars that are disabled or stuck in a snow bank must remain in their cars with helmets on, doors and windows closed and driver restraints in place. Any driver found violating this Regulation will be subject, but not limited to disqualification.

3.9.5. Pets must conform to local leashing by-laws. Pets are not allowed in the pit or paddock area.

3.9.6. Any members found using the track area at any other time than a scheduled event will be banned from the TBAC and subject to any criminal charges applicable.

4. TRACK LAYOUT

4.1. Responsibility: Safe track layout will be the responsibility of the Competition Director and compliant with insurance requirements.

4.2. Specifications:

4.2.1. The track must be at least $\frac{3}{4}$ of a mile in length for studded racing and may incorporate a shorter route for rubber to ice.

- 4.2.2. Minimum track width of 35 ft. is recommended. The track should begin at 40 to 50 ft. at the start of the season to accommodate snow build up as the season progresses.
- 4.2.3. Pit entrance and exit should be located on slower portions of the track, preferably off the racing line.
- 4.2.4. The track should be separated from the hot pit by a minimum of a 40 ft. snow bank.
- 4.2.5. The hot pit should be separated from the pit/paddock by a minimum of a 5 ft. snow bank.
- 4.2.6. Each team may have no more than one (1) support vehicle per race vehicle in the pit/paddock area. Permission may be given to teams to allow one (1) additional vehicle in the pit/paddock area for crew transport or for sponsors.

5. FLAGS AND MARSHALLING

- 5.1. Marshalling: The location of Marshal Stations and Flag Positions shall be approved by the Competition Director. Marshals shall be responsible for flagging and communications, for maintaining a safe course by:
 - 5.1.1. Informing drivers, through flags or other signals, of the condition of the course, the condition of their Cars or any other situation affecting the safe running of the event.
 - 5.1.2. Informing Race Control of the condition of the course and the Cars and situations requiring decisions and/or actions by Race Control.
 - 5.1.3. Undertaking emergency action as required protecting the lives and property of the Drivers in the event of an incident.
- 5.2. Flags:
 - 5.2.1. **Green** – The race is underway, course is clear.
 - 5.2.2. **Yellow Motionless** – SLOW, proceed with caution and be prepared to stop. No passings from the yellow flag until you have passed the incident.
 - 5.2.3. **Yellow Waving** – GREAT DANGER! Usually caused by blockage of the racing line. SLOW, proceed with caution and be prepared to stop. No passings from the yellow flag until you pass the next green flag.
 - 5.2.4. **Red** – The session has been stopped. All cars must pull to the side of the track and come to a complete stop. Remain stopped until instructed by an Official or picked up by the pace truck.
 - 5.2.5. **Blue** – Faster competitor is trying to overtake (NOTICE flag only)
 - 5.2.6. **White** – (Shown at Start/Finish Line) Last Lap
 - 5.2.7. **Black** – (Shown at Start/Finish Line) Within 2 laps of being shown the Black flag the driver must pull into the hot pit and report to race officials for instructions. If shown rolled, consider it a warning and adjust your driving.
 - 5.2.8. **Black with Orange Disc (Meatball)** – (Shown at Start/Finish Line) Mechanical problems. Report to your pit.
 - 5.2.9. **Chequered Flag** – (Shown at Start/Finish Line) Race session has ended. Slow down and complete a cool down lap prior to entering the pits.

6. GRID POSITIONS

6.1. Rubber to Ice

- 6.1.1. Grid positions for all first round heats will be a random draw by Timing and Scoring after registration has closed (11 am).
- 6.1.2. Second round heats will be a reverse grid of the first round.
- 6.1.3. Feature Race and Consolation Race grids will be straight up by points accumulated during the event with the top 6 positions inverted. In the case of a points tie, position will be given to the higher starting position in the first round. The top 5 finishers in the Consolation Race may advance into the Feature Race at the back of the pack in finishing order.

6.2. Studded

- 6.2.1. Grid positions for the first heat will be by points (highest to lowest) from the previous week's race, separated by class.
- 6.2.2. Grid positions for the second heat will be by inverting the finishing position (lowest to highest) from the first heat, separated by class.
- 6.2.3. Feature Race grid will be straight up by points accumulated during the event, separated by class. In the case of a points tie, position will be given to the higher starting position in the first round.

6.3. Any cars arriving after the 11 am closing time will be gridded at the rear for the first and second rounds.

6.4. All drivers are expected to be ready to grid as soon as their heat is called. Any Driver taking an excessive amount of time will be gridded at the rear of the heat.

7. STARTING

All races shall start with a rolling start (NASCAR style). No passing until the green flag is displayed.

8. RESTARTS

Should a race be stopped due to a red flag it shall be resumed if less than 80% of the laps have been completed. Cars shall be gridded in single file in the order in which the Cars passed the start/finish line on the last completed lap.

9. FINISHING

- 9.1. The race shall end when the chequered flag is shown after the prescribed number of laps has been completed. If the chequered flag is shown early or late the race shall end at that time.
- 9.2. Finishing positions shall be determined by the number of laps completed regardless of whether or not the Car is running at the end of the race. 60% of the winner's laps shall have been completed to be classed as a finisher (excepting Enduro events).
- 9.3. Cars finishing a given number of laps shall be ranked in the order in which they completed that number of laps.

10. RESULTS

- 10.1. Unofficial results will be available at the designated gathering place following the event. Results will be posted to the website within one (1) week. Previous weeks results will be available trackside at the following event until the start of the first race.
- 10.2. Results will become official one (1) week from the date posted to the website pending resolution of any outstanding protests.
- 10.3. Drivers and Crew are prohibited from requesting results from timing and scoring during the event.

11. PROTESTS

- 11.1. Protests must be submitted to the Chief Steward in writing within 30 minutes of the end of the race in question. Protests regarding results or points must be submitted within 3 days of the results/points being posted.
- 11.2. One protest per car per infraction.
- 11.3. A charge of \$25 will be levied for every protest.

12. SCORING

- 12.1. Points shall be allocated in the following fashion for all classes.
 - 12.1.1. Heat Races: 1st = 10pts, 2nd = 9pts, 3rd = 8pts, 4th = 7pts, 5th = 6pts, 6th = 5pts, 7th = 4pts, 8th = 3pts, all other finishers = 2pts.
 - 12.1.2. Feature Races: 1st = 40pts, 2nd = 35pts, 3rd = 32pts, 4th = 30pts, 5th = 29pts, 6th = 28pts, 7th = 27pts, 8th = 26pts, 9th = 25pts, 10th = 24pts, 11th = 23pts, 12th = 22pts, 13th = 21pts, 14th = 20pts, 15th = 19pts, 16th = 18pts, 17th = 17pts, 18th = 16pts, 19th = 15pts, 20th = 14pts, 21st = 13pts, 22nd = 12pts, 23rd = 11pts, all other finishers = 10pts.
 - 12.1.3. Consolation Races: 1st = 10pts, 2nd = 8 pts, 3rd = 6pts, 4th = 4pts, all other finishers = 2pts.
- 12.2. Point scheme is subject to change without notice based upon race field construction on the first day of racing.

13. TROPHIES AND AWARDS

13.1. The following trophies/awards shall be presented at the annual awards banquet:

- Bridgestone Blizzak Cup
- Bridgestone Blizzak Rubber to Ice FWD Class (1, 2, 3)
- Bridgestone Blizzak Rubber to Ice RWD Class (1, 2, 3)
- NAPA Cup
- NAPA Studded A (1, 2, 3)
- NAPA Studded B (1, 2, 3)
- Club Points Champion
- Rookie of the Year
- Body Beautiful
- Best Engineered

13.2. Trophies and awards are subject to change without notice.

14. RACE SCHEDULE

14.1. As published in Annex C.

14.2. The race schedule is subject to change at the discretion of the Chief Steward to accommodate field sizes, weather conditions or time constraints.

15. CAR CONSTRUCTION

15.1. General:

- 15.1.1. All cars must be neat appearing, mechanically and structurally sound with no protruding sharp edges.
- 15.1.2. All loose items must be removed from the car (ex. spare tire, jack etc.). Interior should be gutted but must have no sharp edges. Carpet and head liner must be removed.
- 15.1.3. All cars must have full windshields. Any replacement of windows must be factory glass or 1/16 inch Lexan minimum. Windshield wiper must remain operational on the driver's side.
- 15.1.4. Headlights (2), taillights (2), and brake lights (2) must be fully functional at the start of each event. One of each light must remain operational throughout the entire day. Auxiliary head lights are acceptable mounted close to the factory mounting points.
- 15.1.5. An amber or yellow Halogen foul-weather light must be mounted outside of the car, along the center line and facing rearward. The light must be on at all times while on the track and remain unobstructed.
- 15.1.6. A deflector mounted horizontally across the trunk lid edge with a maximum width of five (5) inches is allowable to prevent snow build up on the fog lamp and rear window.

- 15.1.7. All cars must have an inside rear view mirror and a minimum of a drivers side exterior rear view mirror.
- 15.1.8. Steering wheel is free. No wood or chain wheels allowed.
- 15.1.9. All cars must have tow points in the front and rear of the car. Both must be marked with red paint or 2 inch high letters "TOW". Tow points must be easily connectable by track workers.
- 15.1.10. Both the Drivers and Passengers doors must be operational from inside and outside.
- 15.1.11. All cars must have a fire extinguisher on board in accordance with Regulation 3.1.7.
- 15.1.12. It is required for all cars to be fitted with a minimum five (5) point driver restraint system in accordance with Regulation 3.1.4. All restraints must be mounted in accordance with Annex A.
- 15.1.13. Car numbers must be a minimum of 12 inches high and located on both sides of the car. Numbers must be of a high contrast color to the color of the car. A minimum 3 inch high number must be mounted on the passenger corner of the windshield. IIRA numbers will be accepted.
- 15.1.14. All four (4) wheels must have a suitable and operational hydraulic braking system.
- 15.1.15. All passive restraints must be disarmed (ex. air bags).
- 15.1.16. Exhaust must exit the car behind the driver and away from the body. Exhaust must be safely secured along its entire length. Any exhaust system routed above the floor pan must be of one piece seamless construction enclosed in its own bulkhead. A sound dampening system is recommended and may be required as the season progresses.
- 15.1.17. All cars must have a substantial firewall between engine and Driver. Floor pan should remain stock but if removed proper structural steel of a minimum of 1 3/4 x .095 wall tubing or equivalent must be used. The tubing will be welded or bolted to the front and rear suspension members and support the roll cage hoop and "A" pillar bars of the roll cage. The stock floor pan may be replaced with an equivalent gauge or greater strength of aluminum or steel.
- 15.1.18. Differentials may be welded.
- 15.1.19. Fuel Cells
 - 15.1.19.1. Fuel cells may be used in accordance with Regulation 3.1.6. and in conjunction with a substantive surrounding bulkhead. The bulkhead shall fully enclose the cell and be constructed of 18-gauge carbon steel or equivalent material.
 - 15.1.19.2. All fuel cells should meet or exceed the mounting requirements with a minimum of two (2) 2" wide x 1/16 steel retaining straps bolted to the floor pan with 2" x 2" x 1/16" steel supporting material.
 - 15.1.19.3. Fuels cells mounted in the rear of the vehicle and are exposed below the rear bumper shall be fitted with a crash protective barrier hoop of a minimum 1 3/4 x .095 steel tubing or equivalent.
 - 15.1.19.4. All fuel cells shall use aluminum or steel fittings for the fuel delivery and vent. The fuel cell must be vented to the outside of the

car. Metal braided fuel lines must be used inside the Driver compartment.

- 15.1.20. Batteries must be solidly secured with terminals covered. If mounted inside the passenger compartment it must be secured inside a solidly mounted “marine type” battery box.

15.2. Bridgestone Blizzak Ice Racing Series (Rubber to Ice Class)

- 15.2.1. All cars regardless of class running in the Bridgestone Blizzak Ice Racing Series MUST use the spec tire on all four (4) wheels. The spec tire is the Bridgestone Blizzak (any model). Please speak to a member of the executive prior to purchasing tires for ice racing.

15.2.2. General Construction:

- 15.2.2.1. All cars competing in the Rubber to Ice class shall not have a wheelbase of more than 103”. No all-wheel-drive cars are allowed in the Rubber to Ice class.
- 15.2.2.2. Vehicle body lines must remain stock appearing. Vehicle must maintain production dimensions.
- 15.2.2.3. The relationship of engine, drive line and drive axle must remain stock to the factory body. No alterations to the wheel base or location mounts.
- 15.2.2.4. Updating and backdating of engine, within model, is allowed. Engine must use stock mounting points.
- 15.2.2.5. Any engine modification is allowed.
- 15.2.2.6. Use of stock fuel system is recommended. If a fuel cell is used and located anywhere in the Driver compartment, the driver must wear a fire retardant driver suit in accordance with Regulation 3.1.2. Use of fire retardant undergarments, balaclava, gloves and boots and in accordance with Regulation 3.1.3. is recommended.
- 15.2.2.7. Stock Bumper system or no bumpers may be used. NO external bumper modifications allowed this would included any form of front piping or lighting brackets that may appear to be grill or head light guards stock appearing only.
- 15.2.2.8. All cars must be equipped with a minimum of a roll cage and double door bars built in accordance with Annex B.

15.2.3. Front Wheel Drive Cars (FWD)

- 15.2.3.1. No ballast is allowed.
- 15.2.3.2. No wings are allowed.

15.2.4. Rear Wheel Drive Cars (RWD)

- 15.2.4.1. All ballast must be painted bright orange and clearly marked with the car number and amount of weight. All ballast must be securely mounted and approved by the Chief Tech Inspector.
- 15.2.4.2. Wings are allowed but may not exceed the horizontal perimeter of the car.
- 15.2.4.3. Drive shafts must have a retaining strap/protective hoop.

15.3. NAPA Auto Parts Ice Racing Series (Studded Class)

- 15.3.1. All cars running in the NAPA Auto Parts Ice Racing Series MUST use the spec tire on the drive wheels. Please speak to a member of the executive prior to purchasing tires for ice racing.

15.3.2. Car Classes

- 15.3.2.1. The TBAC shall run 3 classes of studded cars. They shall be known as Studded X, Studded A, and Studded B. All three classes shall be run together.
- 15.3.2.2. Studded X – reserved for cars of an all wheel drive (AWD) design or cars exhibiting exceptional performance. This would normally include cars built to the IIRA Sub Class GTX.
- 15.3.2.3. Studded A – Reserved for cars of a modified design. This would normally include cars built to the IIRA Sub Classes of GTX, GTXLite, GTO.
- 15.3.2.4. Studded B – Reserved for cars of a stock design. This would normally include cars built to the IIRA Sub Classes of GTU, SGT and ST.
- 15.3.2.5. The TBAC reserves the right to re-classify cars based on performance to maintain the competitive nature of the sport.

15.3.3. General

- 15.3.3.1. Drivers must wear a fire retardant driver suit in accordance with Regulation 3.1.2. Use of fire retardant undergarments, balaclava, gloves and boots and in accordance with Regulation 3.1.3. is recommended.
- 15.3.3.2. All cars must be equipped with a minimum of a roll cage and double door bars built in accordance with *Annex B*.
- 15.3.3.3. No dual wheel cars allowed.
- 15.3.3.4. All cars are required to have protective webbing located over driver's window or safety belt attached arm restraints. Nets must not be attached to the door.

- 15.3.3.5. Drivers of open cockpit cars must wear arm restraints and the roll cage must have the top covered with metal.
- 15.3.3.6. Maximum length of car 190 inches.
- 15.3.3.7. There must be a restraining strap on all drive shafts of all front engines, rear drive cars.

15.3.4. IIRA Sub Classes

All cars are required to meet the general rules section. An adjusted engine displacement multiplier is used to determine class splits. Displacement will be derived by engine serial # or block markings. Engine or transmission insides are not protestable.

<u>Engine type</u>	<u>Multiplier for original displacement</u>
Rotary or 2 cycle -----	1.8
Turbo/Supercharged -----	1.7
Four-Wheel Drive -----	1.3 (GTX and GTXlites only)
Pushrod -----	0.8
Three valves per cyl. -----	1.1
Four valves per cyl. -----	1.2
Variable cam timing -----	1.1

Vehicles with more than one multiplier, ie 4x4, 4 valve 1600cc multiply the first total by the second multiplier ie.
 $1600 \times 1.3 = 2080 \times 1.2 = 2496 \text{cc}$.

- 15.3.5. GTX - Unlimited engine, transmission, chassis. Must have full fender body. Wings and spoilers are allowed but cannot extend beyond the perimeter of the car.
- 15.3.6. GTXlite -Same as GTX except engine adjusted displacement not to exceed 2000cc (see multiplier), and no NO2 allowed.
- 15.3.7. GTO - Those cars which 500 or more of that make and model were produced for street use. It is the responsibility of the entrant to prove eligibility. Trunk lids, fenders, grills and hoods only may be of substitute material, but must be otherwise stock appearing. Floor may be modified for engine or trans. clearance, safety equipment or exhaust system clearance only. Wheel openings may be cut out only as required for tire clearance. Alternatively, fenders may be flared, but the original style wheel opening must be maintained. Spoilers and rear wings are allowed but cannot protrude the outside the perimeter of the car or in the rear be higher than the roof. Engine block must be stock appearing and available for that manufacture. No NO2 allowed.
- 15.3.8. GTU - Same as GTO apply except engine adjusted displacement not to exceed 1750cc see multiplier

- 15.3.9. SGT - Cars of which 500 or more of that make and model were produced and available to the public in the U.S. as street-legal, production cars. Strictly stock, as delivered, with no modifications allowed unless listed below. Over 1750cc - less than 3400 cc adjusted displacement.
- 15.3.10. ST – Same as SGT except engine adjust displacement not to exceed 1750cc. (Exception: Saab 99 & 900 normally aspirated 2.0 liter and Dodge Omni/Plymouth Horizon normally aspirated 2.2 litre or less will be included in ST class.)
- 15.3.11. SGT & ST allowed modifications.
- 15.3.11.1. Any D.O.T. wheels allowed.
 - 15.3.11.2. All SCCA IT modifications allowed.
 - 15.3.11.3. Driver's seat is free. Passenger seat must be stock or the same as the driver's seat.
 - 15.3.11.4. Air intake to air cleaner may be re-routed within the engine compartment.
 - 15.3.11.5. An oil cooler and/or remote oil filter is allowed.
 - 15.3.11.6. Accessory gauges are allowed.
 - 15.3.11.7. Each competitor is required to have available a technical manual containing the specs for their car.
 - 15.3.11.8. Wheel studs may be installed. Any wheel stud may not protrude past edge of rim.
 - 15.3.11.9. Wheel diameter is open so long as wheels are D.O.T. approved. Different size brake components, such as callipers and/or rotors, may be used to fit 13, 14 or 15 inch diameter wheels.
 - 15.3.11.10. Suspension is free but no modifications to suspension pick up points are allowed.
 - 15.3.11.11. All passive restraints must be disarmed, i.e. auto seat belts and air bags.
 - 15.3.11.12. Headers will be allowed.

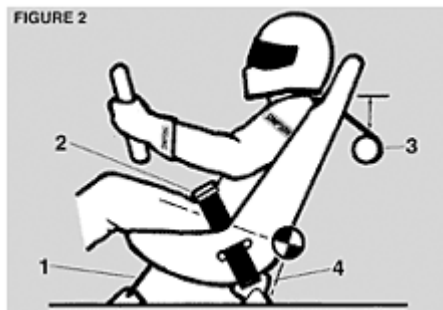
TBAC Rules and Regulations

Annex A

Rev 1.0

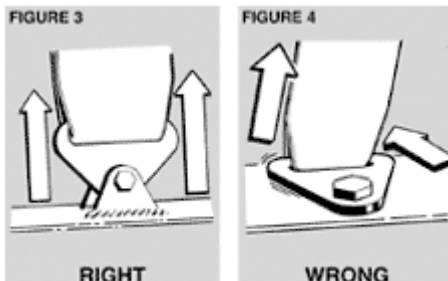
April 27, 2003

RACING HARNESS INSTALLATION



Become familiar with the installation, use, and operation of your system.

- 1) Anti-submarine belt should be anchored behind the chest line.
 - 2) Seat belts anchored apart, the width of driver, at an angle of 45 degrees to the floor of the car.
 - 3) Anchor shoulder straps at a point four inches below top of shoulder.
 - 4) Seat belt anchor should be positioned 2-1/2" forward of the driver's extended back line.
- All mounting brackets should be attached directly to the frame or chassis of car, and installed to limit the driver's body travel both upward and forward. **DO NOT MOUNT TO THE SHEET METAL FLOORBOARD.**



Mounting brackets should be installed at an angle that is compatible with the direction of pull on the webbing under full load.

Minimum specification for bolts and washers to attach the seat belts, harnesses and anti-submarine belt hardware are Grade 8.

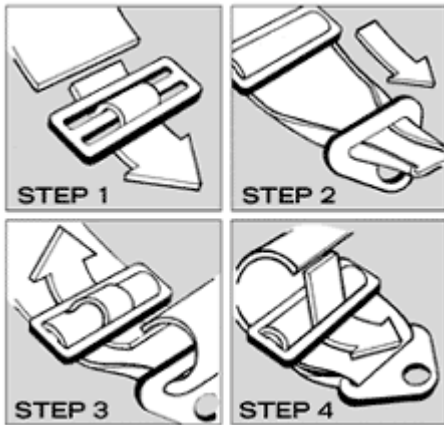
Annex A

TBAC Rules and Regulations

ANNEX A

Rev 1.0

April 27, 2003



UNDER NO CIRCUMSTANCES ARE BOLTS INSERTED THROUGH BELT WEBBING ACCEPTABLE FOR MOUNTING.

Annex A

TBAC Rules and Regulations

Annex B

Rev 2.1

August 30, 2004

ROLL CAGE SPECIFICATIONS

Roll cages are required. The basic purpose of the roll bar is to protect the driver in case of a rollover or driver side impact. Therefore, it is in your best interest to use the guidelines as a minimum requirement.

Roll Bar Material - Mild steel tubing or alloy steel tubing must be used. The tubing is required to be at least 1.375 in size (1.5 recommended) and have a minimum wall thickness of 0.095. An inspection hole of 3/16th of an inch diameter must be drilled in a non-critical area of the roll cage to facilitate Verification of wall thickness.



Construction: The rollover bar will consist of a main hoop with horizontal two (2) rear down tubes, from the rear to the top corners as possible. The main hoop shall be install as close to the roofline as possible and shall provide protection to the driver's compartment. The drivers head while wearing all approved safety equipment should not exceed the protection of the main hoop. Driver's door bars is also an integral part of the rollover bar. Door bars will run from main hoop forward passed the length of the door. Double door bars with support members are mandatory. NASCAR style door bars extending into the

outer door skin panel are recommended but not mandatory. Cross bars reinforcing the main hoop and "A" pillar bars are required. It is recommended to install a vertical bar from the drivers "A" pillar bar to the driver door bar. Hoop mounting points must be plated on at least 16 sq. Inch plate (4" x 4"). Bolted plating is preferred

Annex B

TBAC Rules and Regulations

Annex C

Rev 1.0

July 25, 2004

RACE DAY SCHEDULE

What follow is the proposed race day schedule for the 2007 ice racing season.

<u>Time</u>	<u>Action</u>
0900	Gate Opens/Registration Begins
1000	Practice Begins
1100	Registration Ends/Gate Closed
1130	Practice Ends/Drivers Meeting
1200-1700	Local Series Racing

Please note that this schedule is subject to change and members are asked to check the website for changes.

Annex C

Attachment A:

SFI Foundation Specs Assure Quality Driver Suits

By Jennifer M. Bowden

Years ago, drivers fearlessly climbed into their racecars wearing only cotton T-shirts and jeans. These days, most of us are more informed about driver safety and the importance of being protected from head-to-toe in any racing event. The ability of someone to emerge from a burning car virtually unscathed is a direct result of this recent increase in personal safety awareness.

Of course, racing is inherently risky but the chance of injury can be reduced if you take the time to protect yourself properly. Personal safety is a system of the driver suit, accessories, and helmet. The hub of this system is the driver suit.

There are many things that influence what kind of suit you get such as sanctioning body rules, track requirements, the type and speed of your car, etc. How do you put these factors together to ensure you buy the suit that is right for you? Some drivers look for a manufacturer's name they know or trust. Other people may be new to the sport and not as familiar with the products available.

No matter how much you already know (or don't know) about driver suits, you always have a standard that will guide you in your choice of a well-made garment. That standard is the SFI Foundation Specification 3.2A for Driver Suits. You have probably noticed the black and white SFI patch on many drivers' left shoulders at various tracks, from drag strips to dirt ovals. The patch demonstrates that the manufacturer certifies the suit to meet or exceed the SFI specification.

What does this mean to the consumer? It means that there is a way to differentiate the quality-assured products from the untested products. A driver suit that is certified to meet the SFI spec has been laboratory tested and has passed the requirements of that test. Before getting into the details of the testing procedures, it is necessary to understand what the SFI Foundation is and what it does.



SFI is a non-profit organization established to issue and administer standards for specialty/performance automotive and racing equipment. This includes parts like clutch assemblies and fuel cells as well as personal driver safety items.

The standards/specifications are created via a committee process. The technical committees are comprised of individuals from all facets of the industry. Through their expertise and research, a spec is drafted and then offered to all interested parties in the form of a public hearing. Once revised to the committee's satisfaction, the spec is presented to the SFI Board of Directors for approval. If approved, the spec is published and made available to the public. Sanctioning bodies all over the world include SFI specs in their rulebooks and use them as minimum requirements.

The driver suit spec 3.2A tests a garment's fire retardant capabilities. The spec contains a rating system based on the garment's capability to provide Thermal Protective Performance (TPP) in the presence of both direct flame and radiant heat. The purpose of the TPP is to measure the length of time the person wearing the garment can be exposed to a heat source before incurring a second degree, or skin blistering, burn.

The TPP rating is the product of exposure heat flux and exposure time. The TPP results can be converted to the time before a second degree burn occurs. The higher the garment rating, the more time before a second degree burn. Here are the SFI ratings with the corresponding TPP values and times to a second degree burn:

SFI Rating	TPP Value	Time to 2nd Degree Burn
3.2A/1	6	3 Seconds
3.2A/3	14	7 Seconds
3.2A/5	19	10 Seconds
3.2A/10	38	19 Seconds
3.2A/15	60	30 Seconds
3.2A/20	80	40 Seconds

Another test included in the spec is the after-flame test. When a direct flame is applied the fabric and then removed, the time it takes the material to self-extinguish is measured. This is called after-flame time and it must be 2.0 seconds or less for the layer of fabric to pass. Cuff material is also subjected to this test.

The flammability test evaluates single layers of fabric only. The individual layers of a multiple-layer suit are tested for after-flame time separately.

The TPP test can be used to evaluate multiple-layer configurations as well as single-layer fabrics. The samples used in testing are assembled with the identical fabrics and layer order as an actual driver suit.

Other tests required by Spec 3.2A include thread heat resistance, zipper heat resistance, and multiple layer thermal shrinkage resistance.

A common misunderstanding about SFI ratings is that they represent the number of fabric layers in the garment. It is actually possible for driver suits with various numbers of layers to have the same performance rating. This is due to the wide range of materials used by manufacturers today.

The radiant heat portion of the spec is significant because the majority of racer burns are caused by heat transfer rather than direct flame. Insulation is the best way to prevent this kind of burn. Using multiple layers of fabric helps keep the heat source away from the skin longer because each layer creates air gaps that have to heat up. The extra seconds gained with each layer are precious to a driver trying to escape from a burning car.

Another way to obtain extra air gaps is to wear racing underwear. Nomex underwear should be worn with every type of driver suit, especially single layer suits because it will double the protection time (+3 seconds). The 3.2A rating does not include underwear. It is certified through SFI Spec 3.3 for Driver Accessories and undergoes the same TPP and flammability tests as the driver suit outerwear.

A garment's insulation capability is also affected by the fit of the suit. A suit worn too tight will compress the air gaps and allow heat to reach the skin faster.

There are other things you can do besides finding a correct fit to optimize the protection performance of your driver suit. Ideally, you want to wash your suit after every event. Most suits are machine washable but manufacturers usually recommend dry cleaning. It is *absolutely essential* to read the care tag on the garment and closely follow the manufacturer's instructions.

Avoid wearing your suit while working on the car. Not only would you be ruining an expensive piece of equipment, but you would essentially be inviting a fire to burn you. Grease, fuel, oil, and even cleaning fluids can soak into the fabric and support the flames of a fire, causing high heat. Fluids soaked into a suit also produce steam when exposed to heat and cause liquid vaporization burns.

If you are ever involved in a fire, discard your suit and get a new one. Even the smallest singe is a weak spot in the material and can cause a problem if exposed to fire again. Proper maintenance of a driver suit will help extend its useful life and provide you with years of protection.

Auto racing is the fastest, most exciting sport in the world and with speed comes danger. Drivers put themselves at risk every time they climb into their racing machines. Fortunately, there is a program in the form of the SFI Foundation to help guide drivers in choosing quality protective equipment.

Attachment B:

FAQs about Snell and Helmets

Who/What is Snell?

William "Pete" Snell was an amateur auto racer. He died needlessly in a racing event in 1956 when his then state-of-the-art helmet failed utterly to protect him. His friends, including Dr. George Snively, formed the Snell Memorial Foundation to remember Pete Snell and to encourage the development and use of truly protective helmets.

Why wear a helmet?

Auto racing, motorcycling, bicycling, skiing and any activity that incorporates speed, agility and a head, all impose risks of head injury leading to death or permanent disability. Helmets are the single most effective means of preventing these injuries.

Why wear Snell-certified helmets?

The protective capability of a particular helmet is difficult to measure. One can quickly judge a helmet for style and price, and, with only a little effort, for fit and comfort as well. But who knows what that helmet can do when someone's skill, experience and every other precaution have failed, when his helmet's the only thing between his head and a violent collision. The Snell Foundation knows. We destroy thousands of helmets every year to find out. Snell Certification is our assurance that a helmet has measured up to the highest standards for protective performance time and again.

Why Snell certification and not some other assurance?

Snell Standards are the most demanding. They are set to levels of protective performance that only the best, most protective headgear will meet. But Snell Certification is more than high Standards, it is testing. Helmets must first pass Snell Certification testing by Snell technicians in Snell labs to qualify for our programs. Then samples of these helmets acquired directly from retailers and distributors must continue to pass in order to remain in our programs. Snell Certification is your best assurance that your helmet will perform its most important function: save your life when all your judgment, skill and luck have failed to keep you from harm

Why Snell-certified helmets cost more?

Snell Certified helmets are available in almost every price range. Other features such as style and comfort are much more important in determining helmet price. However, building protective performance into a helmet does cost money. The costs are in the design and development, the materials and, most of all, in quality

control. Snell Certification is your best assurance that the manufacturer has made, and continues to make, this investment in your safety.

What does Snell do with the money?

The Foundation spends the biggest part of its income on the Certification Programs. There are rents and maintenance on its test facility in California, salaries for the test technicians and other employees, equipment repair and replacement, and all the other expenses associated with any non-profit effort. The rest goes to research projects and the Foundation's extensive educational program.

What are the differences between the SA and M standards?

SA Standard was designed for auto racing while M Standard was for motorcycling and other motorsports. There are three major differences between them:

1. SA standard requires flammability test while the M standard does not;
2. SA standard allows narrower visual field than M standard (Some SA helmets may not be street legal);
3. SA standard has rollbar impact test while M standard does not.

Why does Snell make my racing association upgrade to the newest Snell Standards?

In short, we don't. Snell always makes itself available to explain our standards and programs. We may even offer recommendations on some issues. Each association has the responsibility for the safety of its members or participants, which generally creates a unique set of issues that must be dealt with, and rules to be set accordingly.

How do helmets work?

Your helmet is normally comprised of four elements: rigid outer shell, crushable liner, chin strap and fit or comfort padding. The rigid outer shell, when present, may add load-spreading capacity and prevent objects from penetrating the helmet. The liner, usually made of EPS (expanded polystyrene), or similar types of materials, absorbs the energy of an impact by crushing. The chin strap, when properly buckled and adjusted, along with the fit padding helps the helmet remain in position during a crash.

Why replace helmet every five years?

The five year replacement recommendation is a consensus position from both the helmet manufacturers and the Snell Foundation. Glues, resins and other materials used in helmet production can affect liner materials, and general liner deterioration as a function of hair oils, body fluids and cosmetics, and normal "wear and tear" all contributes to helmet degradation. Additionally, experience indicates there will be a noticeable improvement in the protective characteristic of helmets over a five year period due to advances in materials, design and the standards. Thus, the recommendation for five year helmet replacement is a judgment call stemming from prudent safety philosophy.

Why won't Snell certify some types of helmets like flip up front designs?

Snell does not dismiss out of hand, any helmet design that strays from the conventional. Snell does not point out any design specifications, other than general requirements in our standards. We are however, always concerned with

innovations and new designs that may affect the helmet's ability to protect the wearer, or in some case the helmets potential to cause injury. At present, the Foundation has not had the opportunity to test any of the flip up front type helmets. So far, we can not find any fault with these designs as long as they are used according to the manufacturer's instructions. We will also certify any size of helmet as long as it meets the same requirements as any other Snell certified helmet.

How do you test a helmet, do you stand around hitting people on the head?

This question is probably the winner of the most Frequently Asked Questions award, and all I can answer is "Not Anymore". Actually, the testing of helmets is a fairly straightforward process. While most helmet testing is denoted "performance testing" (How well a device or piece of equipment performs under defined conditions that are analogous to real life situations), rather than "materials testing" (The testing of materials that will be used in the construction of an item, to a defined set of conditions in controlled settings), it is really a combination of both. This is because it would be virtually impossible to perform a true performance test on a helmet that would be at all repeatable, and that you could readily ascertain a helmets capability in a variety of scenarios. What has been decided is that testing needs to replicate possible stresses the helmet might see in a wide variety of incidents rather than to try to duplicate a real life incident. True to this philosophy a helmet is tested for a variety of criteria: retention strength, stability (how well the helmet will stay on), penetration resistance, chin guard strength (if applicable), face shield integrity (if applicable), and most importantly impact energy management. Most helmet standards also have requirements for coverage and visual clearances. Helmet testing is a destructive process, meaning that all tested helmets are destroyed during the process. All of the requirements of the Snell standards are described in each individual standard.

So, why aren't all helmets certified by Snell?

Some helmet manufacturers do not believe that they need Snell to demonstrate that their product is among the best protective headgear. Others believe that they need only to produce helmets that meet Government or consensus helmet standards, and some try and just can't make the grade. A very few helmet makers are truly inconsiderate of the consequences of making an inferior safety product (they are not usually around very long).

Where's the Snell label located?

There are two forms of the Snell serialized label. The most common is the adhesive label, but there is also a cloth type for the M, SA and RS standards. The adhesive label or decal is usually affixed on the inside of the helmet. If it is not readily visible, check underneath the flaps of the comfort padding. The cloth type labels a generally sewn onto the chin strap and folded over. If a thorough search fails to turn up a decal then your helmet is not part of the Snell certification program and does not have the confidence of the Foundation.