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**No express or implied warranty or safety will result from publication of or compliance with these rules and regulations. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to spectators or participants.**

**These regulations are comprised of definitions and allowable modification or alterations. If a definition, modification or alteration is not cited then it is to be construed that no modification, alteration or change can be made to the component unless it is specifically approved by the rules committee.**

**Existing rules may be revised, or new rules may be added after this rulebook was printed. For the latest updates, please check the website at [www.winterthunderchallenge.com](http://www.winterthunderchallenge.com).**



## **INTRODUCTION**

The WTC rulebook is designed as a guideline or quick reference tool to help you understand the rules that pertain to Snocross racing. All racers should be fully aware of the regulations set out in the rule book and should be prepared to abide by them. The regulations are comprised of definitions and allowable modifications or alterations. If a definition, modification or alteration is not cited then it is to be construed that no modification, alteration or change can be made to the component.

**It is a racer's responsibility to present a snowmobile that is legal at all times. It is not WTC'S responsibility to detect every rules violation at every inspection. If you have any further questions concerning rules, please contact our Technical Director at \_\_\_\_\_**

This rulebook was posted 2012. All rules in this rulebook are subject to change. Please check the WTC website ([www.Winterthunderchallenge.com](http://www.Winterthunderchallenge.com)) for rule changes, additions and information not included in this rulebook.

**It is the driver's responsibility to visit our website prior to each race to make sure they have the latest updates.**

WTC reserves the right to change or modify these rules at any time. Being an WTC Competition Member allows you to race at any WTC/ISOC sanctioned event, provided you have the appropriate entry and waiver forms completed and submitted by the appropriate deadlines. In addition, all WTC Competition Members may use the track for practice at a reduced Members fee on scheduled practice days.

If you have any questions about your membership, please contact WTC Headquarters at 847-487-6900.

## **CLASSES EFFECTIVE 1-1-2012,**

**Drivers may enter more than one, but not more than two *divisions*, providing the driver meets the age or advancement guidelines.**

Before advancing to the Semi-Pro classes, a driver must be at least sixteen (16) years of age and have qualified through the advancement procedure. No one thirteen (13) years of age or younger can advance to a higher class due to insurance reasons. WTC reserves the right to request a driver to change classes at any time.

### **1. Semi-Pro Classes**

- a. Semi Pro Open (Maximum 600cc 2 stroke, 1050cc 4 stroke)
- b. Semi Pro Super Stock #1 (\*Super Stock designated machines)\*\*
- c. Semi Pro Super Stock #2 (\*Super Stock designated machines)\*\*

### **2. Sport Classes**

- a. Sport Super Stock #1 (\*Super Stock designated machines)\*\*
- b. Sport Super Stock #2 (\*Super Stock designated machines)\*\*

### **3. Pro-Am Classes**

- a. Plus 30 Super Stock (Maximum 600cc liquid)\*\*
- b. Women Super Stock (Maximum 600cc liquid)\*\*

### **4. Novice Classes**

- a. Super Stock 17 years old and up \*\*
- b. Women 10 years old and up (designated machine is age related)

### **5. Junior & Transition Classes**

- a. Junior 16 - 17 ((Maximum 500cc liquid, 600cc fan cooled, **or "Throttle Restricted" 600cc Super Stock machines**)\*\*
- b. Junior 14 - 15 (Maximum 500cc liquid, 600cc fan cooled, **or "Throttle Restricted" 600cc Super Stock machines**)\*\*
- c. Junior 10-13 (Maximum 600cc fan cooled machine)
- d. Junior Fan 10-15 (up to 600cc fan machines)
- e. Junior Novice 10 - 13 (up to 600cc fan machines)\*\*
- f. Junior Novice 10-14 (up to 600cc fan machines)
- g. Transition 8 – 12 (Maximum 300cc fan cooled machine)\*\*

### **6. WTC 120 Classes**

- a. Stock 4 - 5 years old (up to 12mph)
- b. Box Stock 4 - 12 (up to 12mph)
- c. Improved Stock 4-12 (up to 15 mp)
- d. Pro Stock 4 - 12 (up to 20mph)
- e. Open (AKA Outlaw)

### **7. ISOC 120 Classes**

- b. Stock 6 - 7 years old (up to 15 mp)\*\*
- c. Stock 8 - 12 years old (up to 18 mp)\*\*
- d. Champ 6 - 12 years old \*\*

### **8. TRAIL SLED Classes**

- a. Stock (Maximum 800cc machine)
- b. Modified (Maximum 800cc machine)

\*\* Denotes an ISOC Affiliated Class

## ***RACE DIRECTOR AUTHORITY***

1. The Race Director shall be responsible for the conduct of the race. He shall have the right to make the final determination concerning all aspects of the race and the race facility, including design.
2. The Race Director shall have the voice of authority to discipline the participants for violation of the rules. Such discipline will be limited to disqualification of a participant and/or exclusion from an event, and/or fines.
3. Official race results shall be approved by the assigned Race Director and a signed copy will be returned to the promoter for announcement and distribution.
4. Race Directors may not have a vested interest in the events in which they act in an official capacity. They may not work in an official capacity when they have a vested interest in that class.
5. Race Directors may compete in events other than those in which they officiate.
6. The Race Director may cancel any race or the entire event for reasons of safety regarding competitors or spectators, and in such case shall determine the awards, if any. The Race Director may shorten the race for any reasons of safety but must give drivers adequate notice in advance.
7. A Race Director may judge the mechanical integrity of all timing equipment.
8. The number of competitors that can be safely on the course at any one time will be determined by the Race Director.
9. The Technical Director shall carry and be responsible for the official specifications and certain instruments for measurements concerning verification and control of contestant's machines. The Technical Director may not work in official capacity when he has a vested interest in that class.
10. All equipment and specifications will not be allowed to be used for any other purpose other than for use at sanctioned events.
11. Disciplinary action by the Race Director other than a disqualification or prescribed fines will be under provisions of the Board.

## **FLAG DEFINITIONS**

All riders **MUST** pay close attention to the flags as they will be displayed throughout the entire race.

### **GREEN FLAG**

The green flag is lifted to start the race. The course is clear and race is in progress.

### **YELLOW FLAG**

**NO PASSING** is allowed in any yellow flag zone (the area from the yellow flag to the end of the incident). A yellow flag means there is an incident ahead and there may be some track blockage. All riders will slow down, observe the caution, and most importantly, **NOT PASS** until clear of the incident and through the yellow flag zone. **All sleds must "roll" over the terrain in a yellow flag area. PASSING** under a yellow flag will not be tolerated.

Sled does not leave the ground when in caution zone. No jumping or passing. The caution zone starts at the yellow flag and continues until past the entire incident. **SLOW DOWN. THIS IS NOT THE PLACE TO WIN THE RACE.**

### **JUMPING UNDER A YELLOW FLAG**

Jumping under yellow constitutes a safety hazard. Any rider caught jumping (**track leaving the ground**) under yellow will receive a DQ for that heat. If it happens in a final, the rider will be disqualified and receive 0 points. In a situation where the yellow flag is displayed for numerous laps, riders must obey the yellow flag for all of those laps. If the yellow is waving in conjunction with a checkered flag, the riders must still obey the yellow and "roll over" the finish line jump.

### **PASSING UNDER A YELLOW FLAG**

A pass under yellow will result in a furred black flag. If a rider mistakenly passes under yellow, he has the opportunity to correct the situation, by allowing the rider he passed under yellow, to fully regain the position and advantage he originally had. If the situation is not corrected, the rider will be scored last in his/her heat or final. All calls are at the Race Directors discretion.

### **RED FLAG**

The race will stop immediately, regardless of your position on the track. Slowdown and stop with caution as the drivers behind you may not have seen the red flag. Drivers will be told when to move to a starting area.

**ABSOLUTELY NO WORK OF ANY KIND IS TO BE PERFORMED ON THE SLED.** Anyone working on the sled will be placed at the end of the field or DQ'ed at the Race Directors discretion. Closing a side panel or anything similar is considered working on the sled. The sled will restart the race just as it was when the red flag was thrown. Crew members must stay away from the sled. They are not allowed on the track. Once called to restart, riders have 2 minutes to be at their sleds. Rider will restart and position sled

when told to do so. If the sled cannot be started by the rider one crew member will be allowed to help at the discretion of the Starter. A downed rider will be responsible for letting the track officials know if he/she is injured. If he/she is not injured, he/she must raise their arm immediately to let officials know that he/she is ok. If the downed rider does not raise their arm immediately, he/she will be considered injured and the red flag will be thrown. At this time Medical will be sent to the incident and the rider will not rejoin the race. If Medical is called, the rider will not be allowed to rejoin the race. The rider will not race again until cleared by Medical. If a red flag is thrown that does not involve injury and sled or sleds are able to continue, those sleds will restart at the rear of the field. We will use a staggered restart. The restart line up will be by finishing position. Lappers will be at the back of the field in the position they would be in if the race ended. The restart position of the riders reverts back to the last officially counted lap. If only one (1) lap or less has been completed, the restart will be the same as the start of the race. No work may be performed on the machines without permission from a race official. If a rider is concerned that his sled is not safe to continue, he must have an WTC official examine it before he can touch it.

### **BLACK FLAG**

A furled black flag (the black flag is wrapped around the stick) signifies a warning for either equipment failure or for rider conduct (you do NOT have to stop). A furled black flag pointed at you is a warning to stop whatever activity has caught the eye of the officials. Should you not cease the offending activity, you WILL promptly be displayed an open black flag. (Example here would be rough driving or passing in a yellow flag zone).

An important note regarding an open black flag – the display of this flag is NOT an immediate disqualification. It is a penalty flag and might only require a stop-and-go penalty or the like. DO NOT simply leave the track if you receive an open black flag. Instead you should continue your lap, then carefully slow down and stop at the **START** line. Look for the Starter to show you where to stop. Starter will release rider when penalty has been served. Rider is not allowed to stop and talk to flag man at the finish line. The starter will have radio contact and can explain the penalty. Always, of course, rejoin the action in a safe, observant manner when indicated to do so by the starter. Only in the most extreme cases, the flagman may hold you until the entire field has passed (i.e. for cutting the course) or may inform you that you have been disqualified. In that event, exit the racecourse safely and report back to your paddock or staging area. In the event that you disagree with the decision of the officials regarding a black flag penalty, please be advised that all such calls will be made solely at the discretion of the Race Director, after any and all necessary information has been gathered. Should you disagree, regardless of how strongly you disagree, you may present your case directly, and ONLY, to the Race Director, and in an appropriate manner. You must NOT engage or accost any trackside official with any abusive volume or language. To do so may be grounds for **IMMEDIATE DISQUALIFICATION**. This is a professional series, and we expect **ALL** involved to act accordingly. Your argument, when presented in an appropriate manner, will be duly considered and, should your protest have merit, the decision of the officials could be reviewed.

**Note:** At our discretion we can black flag a side panel that comes open. If the clutch side panel comes open exposing the clutch, it will prompt a black flag. It is a potential safety hazard. This may also occur if a hood opens up or if it comes off completely as it would block the rider's vision and be considered hazardous.

### **DISQUALIFICATION UNDER A BLACK FLAG**

Regardless of the situation, all attempts will be made to notify a rider in competition of a black flag. Should it not be possible, for whatever reason, the rider will be informed as soon as possible after the race.

### **BLUE FLAG**

The blue flag will be displayed to machines being lapped. Lapped riders should move out of the way of the leaders.

### **WHITE FLAG**

The white flag will be displayed when riders have started their last lap.

### **CHECKERED FLAG**

The race is complete. Should a checked flag be displayed later than the official distance, the finishing order will be decided on the basis of the official distance. **ALL** sleds are to proceed immediately to the tech area. You may be required to stop for a post race technical inspection unless otherwise instructed by a WTC official. Be sure to clear the landing zone/table top of the finish line as other sleds will be coming behind you and stopping is unsafe.

### **GENERAL REGULATIONS**

All riders and crew who enter secured areas within the facility must be aware of and abide by these rules and all applicable rules in the general competition section.

The intent of these rules is to establish a venue in which all qualified riders and machines can compete at their own level. These rules are definitions and guidelines which allow for modifications or alterations. If a definition, modification or alteration is not cited, then it is to be construed that no modification, alteration or change can be made to the component unless it is specifically approved by the rules committee.

**Rule updates and/or changes will be posted on the WTC website, on the pit board in staging, or in the Tech Inspection area. It is the responsibility of the rider and crew to be aware of such changes.**

### **RIDER & MACHINE**

1. A rider and the machine's chassis and motor shall be considered a unit and once the class has begun, neither will be substituted. If a rider qualified on a machine, both the rider and the chassis and motor must be in the same final event of the class. Any rider caught substituting a chassis or motor will be subject to immediate disqualification and possible disciplinary action and may lose all points at the event in that class.

2. **Rider AND machine MUST report to Post Race inspection before returning to the pit area, failure to do so, may result in disqualification.**

### **RACE REGISTRATION & ENTRY REGULATIONS**

1. A signed Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement form is mandatory for all personnel in non-spectator areas (paddock, staging and track) at each event.
2. All riders must have registered at race headquarters and have signed a Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement before any runs are made (practice or racing). **Any rider practicing or racing without proper waiver and registration forms filled out may be disqualified.** All entries must be to the WTC office by the proper deadline. (Please check the WTC website for entry deadline information. This does not guarantee your entry in the race - some classes will be full before this date.
3. Refunds on any Racer Entry fee, Gate fee, Pit fee or other is at the sole discretion of WTC.
4. Service fees or insurance fees are not considered part of entry fees.
5. Gate admission fees will be posted before any event.
6. A schedule of events will be available at all events.
7. Rider and machine may race other higher classes in the same division.
8. Any class or event can be eliminated when there are less than three (3) official entries at the close of registration.
9. All participants in events must be fully familiar with the Rules and Regulations, and any additional rules by Race Promoters that may be specifically applied to any event.
10. All participants are responsible for at least a 10 BC fire extinguisher in their pit area. Any pit area without the proper fire extinguisher is subject to a \$250 fine.
11. **All riders are responsible for the proper disposal of hazardous materials (examples; gasoline, oil, antifreeze, etc.) and waste (garbage). Any rider not in compliance, may be suspended and/or fined.**

### **RIDER PROTECTIVE EQUIPMENT**

These general rules apply to all classes unless noted. All members are required to be fully aware of the following regulations and abide by them.

1. Full coverage helmets are **mandatory at all times when operating a snowmobile anywhere on the facility.** Helmets will be full protective coverage and carry a minimum rating of **ECE 22.05 or SNELL 2005, or newer**, "Snell Foundation Approval Code." **Removal of "Snell 2005" identification tags or decals may result in the helmet not legal for competition.** Helmets must be securely fastened at all times. **Riders competing without their helmet securely fastened will be immediately disqualified.**
2. **The helmet MUST be predominantly blaze or international orange in color. More than 50% of its entire outer surface, including the visor, must be orange. A template measuring 2 by 3 inches placed anywhere on the helmet must contact orange color.**
3. There must be at least one hundred forty four (144) square inches of visible

international (blaze) orange on both the driver's front and back. (228" total) This is required at all Snocross events. If the driver has a question they should see the Race Director or Technical Director.

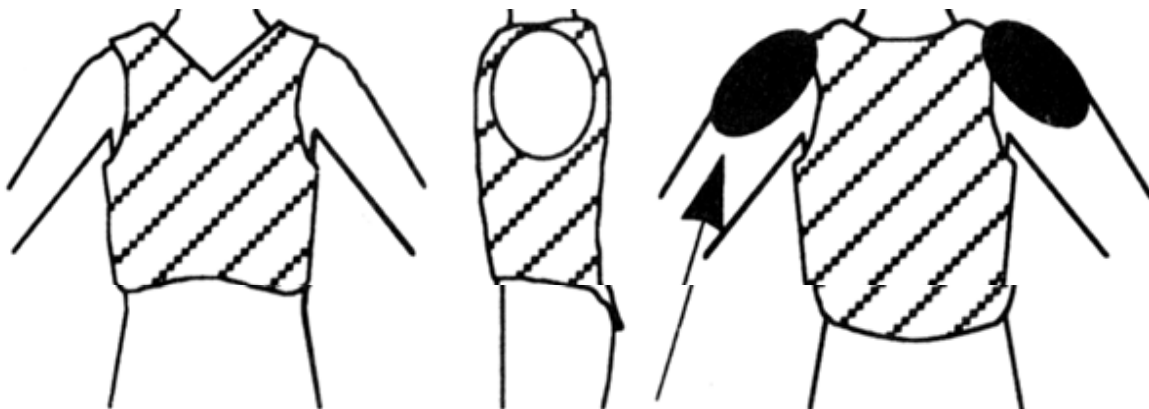
4. Gloves and appropriate clothing are mandatory.
5. Eye protection is mandatory. Face masks may be required at the starting line at the discretion of the Race Director. If corrective lenses are required to drive a motor vehicle, the driver will also be required to wear them while racing.
6. Noise silencers or hearing protection are mandatory in all modified classes.
7. The use of upper body protection equipment is mandatory. The upper body protection must cover all body areas. **Motocross vests and hockey equipment do not meet this rule.**
8. Shoulder pads are to be added to the upper body protection.
9. Shin and knee guards are mandatory. Shin and knee guards will be worn on both legs. The shin guard must extend from the instep to above the kneecap and be constructed of an impenetrable material.
10. Elbow pads, mouth guards, chin guards and neck collars are highly recommended.
11. Blue jeans or jackets, overalls or any clothing displaying vulgar language is not allowed.
12. Any safety equipment questions should be directed to the WTC Tech Director.

## UPPER BODY PROTECTION

**FRONT**

**SIDE**

**BACK**



**Shoulder pads required for Snocross and Cross Country**

**RIDER IDENTIFICATION BIB & DECALS**

1. All riders will wear the number assigned by WTC Headquarters. It is the rider's responsibility to provide themselves with a bib or other form of their assigned number on their back **and be of contrasting colors of the uniform.** The numbers on the riders back will be a minimum of 8 inches high and a minimum of 1 inch wide. Uniform numbers must match the number on the sled machine. It is also recommended, the rider have their race number and first name placed on the front upper left or right hand side of the uniform, minimum 1" in height. Riders will be required to keep the machine numbers and bib numbers in legible condition. Riders without legible numbers or numbers assigned to them may not be scored. The Race Director has the final call on what is deemed legible.
2. If a rider's numbers are not legible, they may not be scored. If a rider has been notified either at the race site or by letter after an event and the problem is not fixed, they will not be scored.
3. All riders are required to display three (3) WTC decals on their machine(s); one on each side of the hood and one on the windshield.

## **GENERAL NUMBER PLATE GUIDELINES**

1. All riders are required to display a number plate on each side of their machine sled. Generally accepted areas are: on each side of the hood / side panel or each side of the rear tunnel.
2. Background color is to be **WHITE** and large enough to display **BLACK** 6-inch tall numbers with a 1-inch stroke. (line thickness) NOTE: Additionally accepted number plate guidelines are that of the ISOC series. A sheet providing guidelines is on the following page.
4. Regarding the number plates, the edges of the plate must have rolled edges and rounded corners for safety.
5. ***There will no unauthorized logos allowed. Only the assigned number will be allowed on the number plate.***
6. 120 Number Plates allowed are a vinyl graphic on the rear side of the hood. The number must be at least 4.5" high and  $\frac{3}{4}$ " thick, with a black number on a white background. **THIS IS FOR 120S ONLY.**
7. **Additional accepted number plates include ISOC Number Plate Guidelines.**

## 2011-2012 Number Plate Guidelines

All riders taking part in the ISOC/AMSOIL Championship Snocross Series will be required to display a semi rigid number panel on each side of the rear portion of the tunnel. Panel material can be black or white, however, the background color of the panel must correspond to the class you race and the background MUST be large enough to display a full 6-inch number within a minimum 1-inch stroke (line thickness). Any vendor may be used as long as it complies with guidelines set here.

If two different people are using the same sled with the same number, but different classes, please use the background of the higher level rider.

Panels should be attached directly to the tunnel in at least two locations and it is recommended that any portion extending above the tunnel more than 3 inches also be reinforced. The edges of the panel must be rolled for safety.



Pro Men - Black on White



Semi-Pro - White on Black



Pro Women - Black on Pink

Background color spec:  
CMYK - 80% M  
Vinyl - 3M Magenta, Process Magenta or equivalent  
Thermal - Gerber Pink or 80% Magenta



Sport Men & Women - Black on Yellow

Background color spec:  
CMYK - 100% Y  
Vinyl - 3M Bright Yellow or equivalent  
Thermal - Gerber Yellow or Process Yellow



YOUTH/JUNIOR/120 - Black on Grey

Background color spec:  
CMYK - Maximum 30% black  
Vinyl - 3M Medium Grey or equivalent  
Thermal - Gerber Light Grey

## **DRIVER LIABILITY**

The driver, in signing the Driver Entry Waiver and Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement elect to use the course at the event at their own risk, and thereby releases the sanctioning organization together with their heirs, assigns, officers, representatives, agents, employees, and members, sponsoring organization and owners of properties on which sanctioned events are to be held from all liability from injury to person, property may be received by said entrant and from all claims of said injuries to the parties listed above growing out of, or caused by any construction or condition of the course over which the event is held.

## **RIDER RESPONSIBILITY & PIT CREW**

Members of pit crew, etc., are the responsibility of the rider to whom assigned. If a crew member lets someone else use their wristbands, tries to enter restricted areas without the proper identification, wristband or signing a waiver, or in any other way becomes a problem for WTC race officials, the rider whom they are with, can be penalized up to and including disqualification and fines.

The rider's crew member(s), in signing the Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement, elect to use the course at the event at their own risk, and thereby releases the sanctioning organization together with their heirs, assigns, officers, representatives, agents, employees, and members, sponsoring organization and owners of properties on which sanctioned events are to be held from all liability from injury to person, property may be received by said entrant and from all claims of said injuries to the parties listed above growing out of, or caused by any construction or condition of the course over which the event is held.

## **MISUSE OF PIT PASSES**

Improper usage of pit or paddock passes may be grounds for discipline. This disciplinary action may include fines and possible disqualification for the rider.

## **FRAUD, BRIBERY & ILLEGAL ASSISTANCE**

In addition to non-compliance with any of the above regulations or rules, the following offenses shall be considered a breach of regulations subject to disqualification.

1. Bribing or attempting to bribe anyone connected with the race; accepting or offering to accept a bribe.
2. A competitor accepting any kind of assistance that aids in machine operation during the race.
3. Any fraudulent proceedings or act of prejudicing the interest of the race generally.

## **RIDER CHECK-IN**

1. All riders and crew members are required to check in, sign a Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement, and **WEAR** a release wristband on the appropriate wrist.

2. Crew members not signed in by the end of rider check-in will be required to pay for gate admission and a pit pass.
3. Everyone who is in the pit area must be wearing a wristband on their wrist. Riders or their pit crew caught in the pit area without a wristband, switching wristbands, or using old wristbands could subject the rider to disciplinary action, fines, and possible disqualification.
4. Riders must be checked in by the appointed time.

### **RIDERS MEETING**

The mandatory Rider's Meeting will be held at an announced time and place. It will be conducted by the Race Director and/or Race Promoter. Descriptions of the course, flags, etc. will be made. Pins, stamps, tags, etc. may be used to check the identity of riders at the meeting. Riders not attending this meeting are subject to penalties or fines (i.e. no practice).

### **PRACTICE LAPS**

There will be approximately a one (1) hour open practice session (hot laps) on each race day dependent upon snow conditions. This time may vary due to race conditions. Refer to the schedule of events for times. Riders should report to the staging area to run practice laps. Length of practice sessions will be determined by amount of time available at each event by race officials. All riders must be registered and have signed all waivers. **Any rider on the practice track without being registered or having signed the proper waivers will be disqualified.** The Race Director has the power to change or modify practice at any time.

### **STAGING AREA**

Reasonable speeds will be observed in the pit and staging areas. Riders will report to the staging area to run practice laps. The schedule of events will be posted on a board in the staging area. It is the rider's responsibility to be aware of what heat they are racing in and be in the staging area when their respective heat is called. All riders and pit crew will be required to have tethers securely attached to their bodies while riding through pit and staging areas.

### **WARM-UP STANDS**

1. Snowmobile stands that catch and retain traction components, and other items that are thrown by a track, are mandatory. The machine must be placed on a legally approved stand, placed within six (6) inches of the rear of the tunnel opening, and within twelve (12) inches of the track. This stand is to be used whenever the rear of a machine is raised to clean out the engine or track and must be used in the paddock and pit area at all times. The stand must be constructed of a metal material sufficient to contain cleats or other items that might be thrown from a track. This material must be constructed of a metal equivalent to 6061 T6 aluminum 1/16 inch thick. Side extensions are mandatory and at a minimum, the side extensions must extend to the center of the back axle.
2. No full throttle operation is allowed while the machine is on the warm-up stand.

## **TUNE-UP AREA**

1. Tune-up of the engine will be performed in the proper area only when available. Riders must consult with the Race Director to determine the proper tune-up area at each event. The tune-up area will be held on a course, completely free of obstructions, which provides adequate and safe run-off areas at the end so competitors may slow down and exit safely.
2. All rider entry fees must be paid before a rider may use the designated tune-up area.
3. All riders and pit crew in said tune-up area must have signed the Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement and be wearing the event specific wristband.
4. All appropriate safety gear and tethers are required in the tune-up area.

## **RACE START & START LINE**

1. The rider and one (1) crew member are allowed on the start line. The rider is the ONLY person allowed in front of the machine.
2. Once the machine leaves the start line on its own power, the machine is considered to have started the race.
3. A rider may raise his hand if there is an equipment problem on the start line. The starting flagman will wait a maximum of two (2) minutes for the rider to correct the problem.

## **RIDER MAY BE PENALIZED AT THE START OF A RACE**

1. Jumping the start.
2. Causing a restart.
3. Unsportsmanlike conduct (at the discretion of the Race Director).

## **START LINE PENALTY**

For classes that all of the riders advance to the final, any rider who scores a DNS (did not start) in qualifying will be required to start from the penalty line in the final at the discretion of the Race Director. If a rider scores a DNS in all rounds of qualifying, the rider will not be allowed to compete in the final. All riders must qualify for a final.

## **PASSING**

A rider must always be prepared for another machine to pass and must therefore be on the lookout for other machines approaching from behind. Riders will not hinder or obstruct an overtaking vehicle. A slower rider (lapped rider) is to move over for the passing machine.

## **LEAVING THE COURSE**

1. Riders leaving the course must re-enter in a safe fashion and without gaining a position or advantage (riders will not be permitted to cut across the infield). Failure to follow this procedure may result in a penalty or disqualification at the discretion of the Race Director.
2. Riders may not stop on the race course. If mechanical problems force this, the rider is responsible for getting the machine off the course. Failure to assist the race officials in removing the downed sled may result in a DNS score.

## **RACE FINISH**

A rider whose machine is disabled before the rider reaches the finish line may push or pull the machine, with the rider's own unaided muscular energy, across the finish line and will be considered to have completed the race. A rider is said to have finished a race when the rider is in contact and in control of the machine as it crosses the finish line.

## **INJURED RIDERS & DAMAGED MACHINES**

1. An injured or otherwise incapacitated rider or damaged machine shall be prohibited from racing with exception that, if in the Race Directors judgment, the rider or machine is determined not to be a danger to rider's self or any other competitor. The Race Director's decision is final.
2. If for any reason a rider is forced to stop on or near the course during an event, it would be the rider's first duty to remove the machine from the track so as not to endanger or obstruct other riders.
3. A rider who has spun out or stalled should raise both hands over their head to indicate that no more movement will be made until the field has passed and to indicate no injury.

## **UNSPORTSMANLIKE CONDUCT**

1. The deliberate blocking of a faster machine is cause for disqualification or a Stop and Go penalty at the discretion of the Race Director.
2. Bumping or cutting of lanes is cause for a Stop and Go penalty or disqualification at the discretion of the Race Director.
3. Any dangerous or foolish driving, crowding, chopping, cross jumping or unsportsmanlike conduct on the course, in the pit area, or anywhere else on the race grounds could subject contestant to disqualification at the discretion of the Race Director.

## **OBSTRUCTION**

If for any reason a rider is forced to stop on or near the course during an event, it would be the **rider's first duty to remove the machine from the track** so as not to endanger or obstruct other drivers.

## **SIGNALS**

A rider who has spun out or stalled should raise both hands over their head to indicate that no more movement will be made until the field has passed and to indicate no injury.

## **RADIOS**

1. **Radio communication from crew member(s) to rider are not allowed. There will be no independent radio transmission on sanctioning bodies radio frequencies.**
2. **Helmet IPODs, MP3 players or musical device radios will be NOT allowed at ANY events.**

## **CAMERAS**

WTC reserves the right to restrict camera mounts on ANY SLED.

## **SUPPORT VEHICLES**

No unauthorized motorized vehicles are allowed in the pit or staging areas. Machines have to return under their own power. Only disabled machines may be towed from the track. **Pit motorized bikes are not allowed.**

## **SPEEDING**

Reasonable speeds will be observed in the pit and paddock area. All pit areas are caution zones where the utmost rider awareness is required.

## **TEMPORARY SHELTERS**

No temporary construction of the following types will be permitted in the pit area; tents, unless flame resistant and have been tested within one (1) year and proof of testing is supplied to fire officials or fire marshal; make-shift wooden enclosures are not allowed. Any and all shelters are subject to approval by a WTC official.

## **ANIMALS**

No aggressive animals will be allowed at the race site. All animals **MUST** be on a leash.

## **PROTESTS**

1. All formal protests must be made in writing, by a rider in the competition at the event, from the class in question, on a formal WTC protest form accompanied by a **\$250 cash** protest fee.
2. Protests, grievances, etc. must be submitted within thirty (30) minutes after affected class results are posted. No protests, grievances, etc., will be accepted more than thirty (30) minutes after the posting of the results of the affected class.
3. When the official protest is made with the fee, teardown will not be complete until protest is satisfied or proven unwarranted. If the protest is valid, the fee will be returned to the protester. If a protest against another rider is made and found invalid, the fee will be given to the protested machine owner for the inconvenience. This is to be accomplished before the machines are released from teardown.
4. There is no need for formal protests in the case of riding infractions during an event. Reports of such alleged infractions should be made to the Race Director, who in turn will request a report from the flagman or the assigned official on the course.
5. A protest must be valid in the eyes of the Race Director, or he has the option not to accept it for action.
6. No protests will be accepted that refers to a Race Directors or Technical Directors judgment or decision.
7. It shall not be possible to protest or appeal technical inspection equipment, scoring or timing equipment.

## ***ENFORCEMENT, DISCIPLINE AND VIOLATIONS***

### **EJECTION FROM RACE SITE**

The Race Director has the right to eject any person(s) from the pit, paddock (staging area) or race track area.

### **CONDUCT OF PARTICIPANT (OFFICIALS, DRIVERS, CREWS, ETC.)**

1. Vulgarity, derogatory or offensive language could result in disciplinary action, ejection from race site and be subject to fines and penalties.
2. Any participant that threatens bodily harm or assaults any official, rider, crew, etc., may be subject to disciplinary action, ejection from the race site and be subject to fines and penalties.

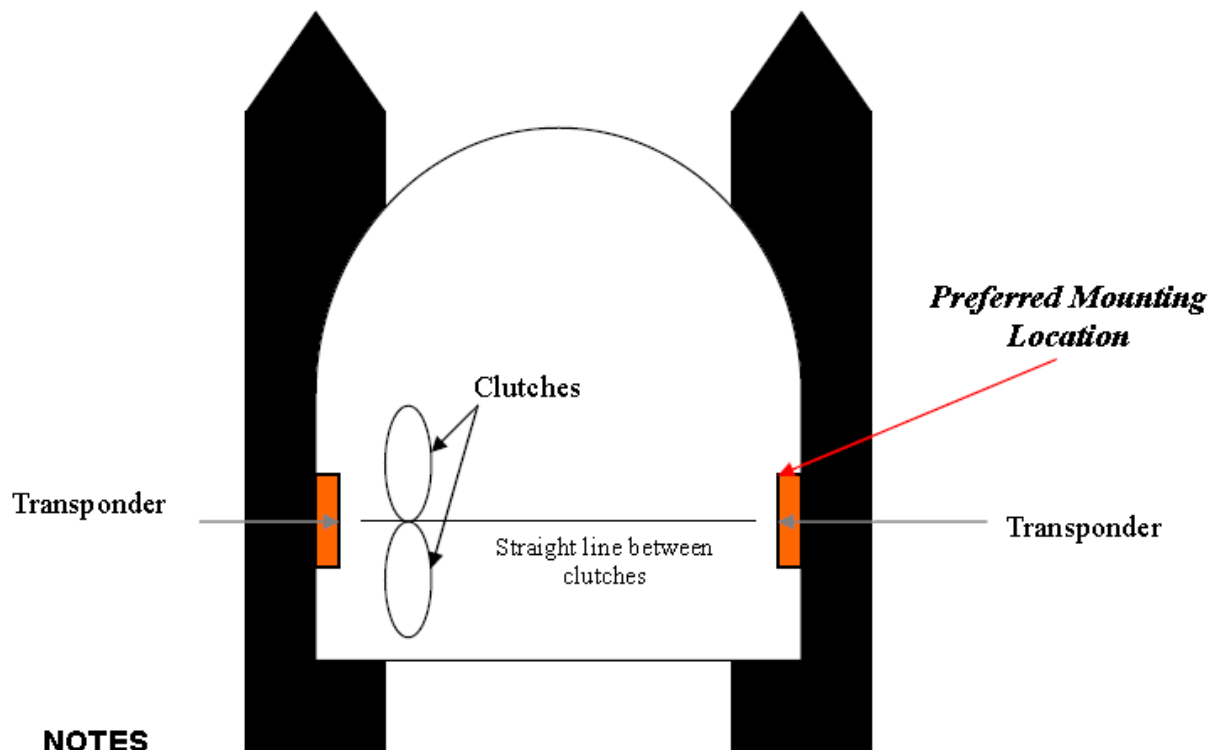
## ***TRANSPONDERS***

Transponders are mandatory in all classes. The following rules will apply to transponders:

1. **Transponders must be hard mounted on the center line, between the two clutches on either side of the snowmobile as low to the ground as possible.** It should be mounted vertically so that you could read the serial number on the front and the black part of the transponder is facing the ground. (It is recommended the transponder be mounted on the muffler side, away from the moving clutch components.)
2. **It is the rider's responsibility to ensure a working transponder is in place prior to the start of the race.** (In the event there is not a transponder mounted on the sled, the rider will be scored last in that event.)
3. **It is the rider's responsibility to ensure the transponder is charged prior to an event.** If a rider has a transponder that is not fully charged, they will be required to rent a transponder prior to the event. If a rider participates with a non-charged transponder and the signal strength is too weak to register, the rider will be scored last and must rent a transponder for the remainder of the weekend.
4. **Transponders will be mandatory for practice.**

## **NOTES:**

## PREFERRED TRANSPONDER LOCATION



## **QUALIFYING & ELIMINATIONS**

### **ROUND ROBIN**

A Round Robin will be used for ALL classes. It will consist of two (2) or three (3) rounds where rider entries will be divided into heats. Finish positions will be added together with the highest score being the best. Ties will be broken with the last round counting the most and the first round counting the least, then "TIE BREAKERS" come into effect.

All riders who start a round will be given a finish position. Riders failing to start will be given a DNS and zero (0) will be used on that round for the master score sheet. Technical penalties will result in a last place finish. Disqualification penalties will be given a DQ, and zero (0) will be used on that round for the master score sheet. If the DQ penalty is issued, no "year end" points will be awarded to the rider. If a crash occurs on the first lap involving more than one rider and none of these riders can continue on, all the riders involved will be scored in the last highest finishing position and all receive the same points. For example, if there are 10 competitors in that heat and three crash on lap one and can't continue, all three would receive 8<sup>th</sup> place points. However, if the crash occurs after lap one, the finishing order will revert to the last officially completed lap prior to the crash.

### **Points Calculation**

<b>Place</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>Heat</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Final</b>	<b>25</b>	<b>22</b>	<b>20</b>	<b>18</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>9</b>

\*If WTC has to run more than ten (10) riders in a heat, all riders scored after 10th will receive one (1) point.

### **TIE BREAKERS**

Ties will be broken by the better result of the last round, going back first to Round 3, and should that be a tie, going back to the better result of Round 2. If that is also a tie, it will go back to the better result in Round 1. In the event that all three rounds are tied, the total amount of riders face in all three rounds will be used. If that is also a tie, a coin toss will be used to break the tie.

Qualifying tie breakers:

- 1st 3rd round result
- 2nd 2nd round result
- 3rd 1st round result
- 4th Total amount of competitors faced
- 5th Coin Toss

## **LAST CHANCE QUALIFIER**

Any class with 15 entries or more will automatically get an LCQ. The top eight (8) qualifiers from the round robin will advance to the front row of the final. The next eight (8) qualifiers will race the LCQ, where the top four (4) will advance to the back row of the final. No points are awarded for the LCQ.

## **PROVISIONAL STARTS**

A Provisional start is available to riders in all classes providing they are in the top ten (10) in the points standings going into the event. A rider would be allowed a back row start in the Last Chance Qualifier (LCQ).

## **STARTING POSITION:**

If a front row starter chooses to move to the back row for the start, they must take a spot not already occupied by the remainder of the qualified riders. They will take whatever is left after the remainder of the final has lined up. If a front row starter does not show for the final, that spot **does not** get filled by the next spot (9<sup>th</sup> place). It remains empty and 9<sup>th</sup> place stays in the back row.

## **ALTERNATES**

1. Alternates can be posted for the final. The same qualifying system will be used to determine the alternates as was used for the normal qualifiers.
2. The next available alternate(s) may start the race if one (1) or more of the normal qualifiers fail to start the final. (Alternates may not be used once a race has started, for example a red flag restart)

## **FINALS WITH OUT A LCQ**

1. When there are less than fifteen (15) entries in a class, the final will be made up of the top eight (8) qualifiers in the front row with the next four (4) qualifiers starting from the back row. In the event that a provisional is used, that rider would start from a third row.
2. Any rider who scores a DNS, (did not start) in any one round of qualifying, will be required to start in the back row of the LCQ or Final. If a rider scores a DNS, (did not start) in all three rounds of qualifying, the rider would not be allowed to compete in the final.

## **DID NOT FINISH "DNF"**

1. A Did Not Finish or DNF is a rider who starts a race however does not cross the Finish Line after the checkered flag is displayed. During qualifying rounds the rule that riders will be scored by the laps completed will be enforced.

## ***POINT SYSTEM***

1. All events count towards the season championship in their respective class unless stated otherwise.
2. WTC reserves the right to ask any rider to move up to the next highest class if necessary.
3. No points will be awarded in an LCQ.
4. The finish order of an event will be based on the number of laps completed by a rider.
5. It is the responsibility of the rider to verify they have received the correct points for a race. Riders will have ten (10) business days from the posting of points on the website to file a written protest to WTC Headquarters regarding the riders concern. After ten (10) business days, points will be reviewed at the discretion of WTC.
6. If a rider starts a "Final" however does not cross the finish line after the checkered flag is displayed, that rider shall receive a "Did Not Finish" or "DNF" and will receive a "0" for points.

## **TIE BREAKERS & END OF SEASON POINTS STANDINGS**

- 1st Result of last event run in series counts the most.
- 2nd Next to the last round back to earlier rounds of series.
- 3rd Number of riders faced in entire series.
- 4th Number of riders faced in last round back to first round.
- 5th Coin toss.

## ***RIDER PAYOUT***

Payout is based on the number of rider entries and the added purse money at each event. Payout will generally be for Semi-Pro classes only.

1. Added purse money may be available for additional classes.
2. WTC reserves the right to modify payout schedule for any event.
3. Payouts will be handed out the following week.
4. Any rider with over \$600 in winnings at the end of the calendar year will be issued a 1099 tax form for the following year for tax purposes.
5. It is the rider's responsibility to know what manufacturers and other sponsors contingency program requirements are and to follow up on all necessary procedures to collect on these programs.
6. Trophies may be available at all WTC events. Trophy presentations are typically the following Saturday after all races are completed for that day.
4. All non-US residents could be subject to US tax laws and withholdings; WTC reserves the right to withhold taxes per US tax laws.

## **NOTES:**

## **SNOCROSS TECHNICAL VIOLATIONS**

Rider infractions/disqualifications in a Snocross event will be forwarded to all WTC/ISOC affiliates. Riders **may be** disqualified for the following technical violations:

1. Running without a hood or shroud in position.
2. Running with altered or non-legible numbers on machine or rider.
3. Running with bibs not in position.
4. Receiving unauthorized assistance.
5. The rider, group of riders, or any crew members attempt to harass race officials, in any manner.
6. Course cutting.
7. Failure to stop for Post Race Technical Inspection.
8. Failure to use proper safety equipment.
9. Allowing non registered riders to operate a rider's machine on the track during a practice lap or during a race.
10. Running without helmet strapped.
11. In the event a rider becomes dislodged from their machine or crashes, and the engine continues to run, the safety disconnect switch fails to function, or is not properly fastened/attached to the rider, while the engine is running, the rider will be disqualified from the heat that the infraction occurred. It is the rider's responsibility to fasten the tether securely.
12. Refueling the machine on the start line.
13. Running while the clutch is exposed.

**These regulations are comprised of definitions and allowable modification or alterations. If a definition, modification or alteration is not cited then it is to be construed that no modification, alteration or change can be made to the component unless it is specifically approved by the rules committee. Existing rules may be revised, or new rules may be added after this rulebook was printed. For the latest updates, please check the website at [www.winterthunderracing.com](http://www.winterthunderracing.com).**

## **GENERAL REQUIREMENTS - ALL CLASSES**

### **MACHINE REQUIREMENTS**

The condition of a machine is the responsibility of the rider. A rider may be disciplined if a rider's machine is modified so as to defraud the officials or other competitors.

### **SAFETY SWITCH**

A functional and operational secondary safety shutoff switch (kill switch) that will terminate ignition is mandatory in all classes. The switch must be located on the right side of the handlebar. The switch may be either the "click-on, click-off" type or the spring-loaded, push and hold type.

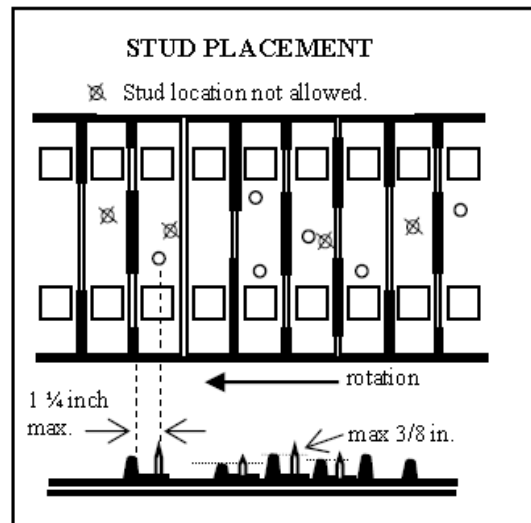
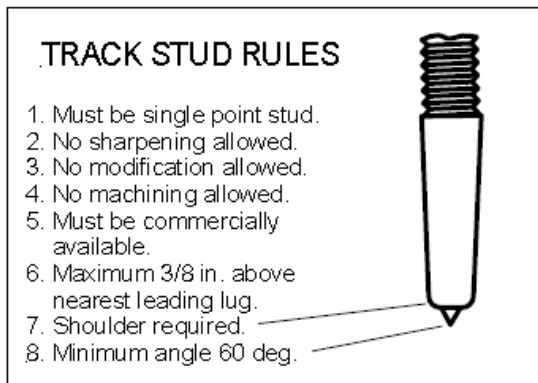
## TETHER SWITCH

All machines must be equipped with a tether switch which will kill the ignition in the event the operator separates from the machine. It is mandatory that the tether be connected to the operator any time the engine is running. In the event that a rider becomes separated from the tether, the rider will be disqualified from the heat that the infraction occurred. It is the rider's responsibility to fasten the tether securely.

1. **Maximum tether cord length will be 4 feet.** Verification of tether cord will be determined at tether cord's fully extended length. **No alligator clips allowed.**
2. Battery operated electric fuel pumps must be connected to the tether switch. This includes electrically controlled fuel injection systems.

## TRACK & TRACTION

1. Regardless of track length or width, a machine is limited to ninety-six (96) sixty (60°) degree unsharpened, unmodified single point picks/studs. Studs must conform to the illustration below.
2. All components of the traction devices must be located in the center of the track between the inside edges of the slide runners (hyfax) and a minimum of 3 ¾ inches from the edge of the track. (4.25" from the outside of the stud itself)
3. The stud backing plate maximum size is 2 inches x 2 ¼ inches. Backing plates must be commercially available.
4. Backing plates may not extend beyond the height of the rib. No sharpening (vertically or horizontally) or modification of the backing plate.
5. All studs must be directly aligned with a "leading" rubber. The 3/8 inch maximum penetration measurement will be taken off the top of the leading lug. The measurements are taken parallel to the edge of the track and parallel to the flat of the track.



### **RULE UPDATE (PAGE 27 of Rulebook)**

**DUE TO THE MANY DIFFERENT LUG SHAPES AND TRACK PITCHES, DELETE THE 1 ¼" MEASUREMENT. THE STUD DOES NOT HAVE TO BE WITHIN 1 ¼" OF THE LEADING LUG, BUT, THE STUD STILL MUST BE LOCATED BEHIND A LEADING LUG.**

6. **Studs and other traction components made from titanium are NOT allowed. Studs must be steel. All hollow studs are ILLEGAL to use, in ALL classes, at any level of Snocross competition.**
7. Add-on traction devices (including all cleats, screws or paddles) are NOT allowed.
8. Maximum track lug height is 1.75.

## IGNITION & ELECTRICAL

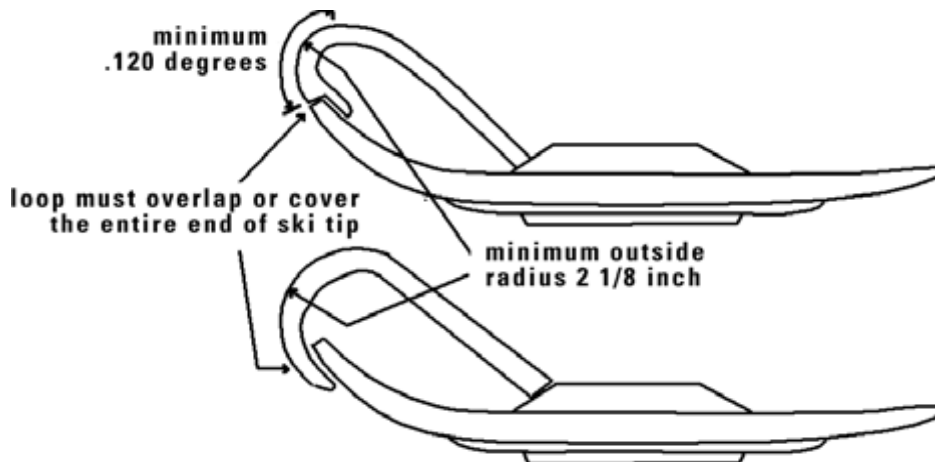
1. Lighting required for the class must be operational at the start of the race. Light failure during a race is not grounds for disqualification.
2. Wet cell must be enclosed in a non-conductive battery box. The positive terminal must be shielded. The battery box must be securely held in place.
3. Data acquisition systems are allowed on vehicle, not the driver.

## SKI SUSPENSION & STEERING

Maximum ski distance, measured center to center of carbide cutting edge under the spindles, is 44.0 inches. The carbide runner must be centered on the ski board. Maximum overall width, measured from outside edge of ski to opposite ski outside edge, is 51.5 inches.

## SKIS

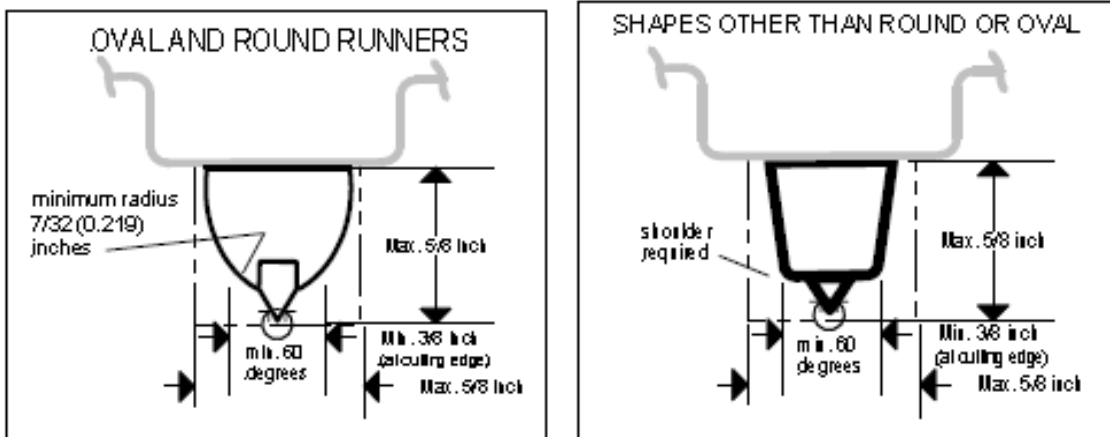
1. Aftermarket skis are allowed. Skis must be commercially available.
2. Minimum ski width is 3½ inches. Main keel and ski runner (cutting edge) must be centered on ski board. Main keel maximum depth is 1 ½ inches without ski runner. Other keel(s) maximum depth is 5/8 inch. No sharp edges are allowed on skis. No Maximum width.
3. May reinforce skis on the top side only. Modifications to the underside of ski is allowed. Contact ski manufacturer for approved modifications.
4. Skis and ski loops must conform to the ski rules in the GENERAL RULES AND REGULATIONS section. Skis and ski loops must be intact at the start of each race. In the interests of safety, a driver may be black flagged if a ski loop is damaged in such a way as to cause a hazard. Ski loop leading edges not one (1) inch in width or not meeting the minimum radius rule must be padded.



## SKI RUNNERS

1. Ski Runners must be commercially available.
2. Only one cutting edge is allowed. The minimum cutting angle is sixty (60°) degrees. No grinding or modification of the host bar or cutting edge is allowed.

3. Host bar may be any shape that conforms to the rules. Except for the cutting edge and groove for affixing cutting material, all edges must have a minimum radius or forty-five degree (45°) chamfer of 1/16 inch (see illustration).
4. Shape of host bar and cutting edge must limit penetration to 3/16 inch. Shoulder required adjacent to cutting edge if host bar is not round or oval. Minimum radius of round or oval host bar adjacent to cutting edge is 7/32 (0.219) inch.
5. Maximum height and width is 5/8 inch. Minimum width adjacent to cutting edge is 3/8 inch for host bar which is not oval or round. Ski runner must fit within 5/8 inch square (see illustration).



6. Non traction events: Carbide ski runners or any ski runners with sharp cutting edges are not allowed. Ski runners must have rounded edges where they contact the surface.
7. Ski runners without sharp edges or carbide inserts may be any shape so long as they conform to Snocross maximum and minimum dimensions for ski runners.

## FRAME & BODY

1. Traction devices are allowed on the running boards.
  - a. On the flat of the running board - traction devices must be dulled and be no higher than 1/2 inch above the flat of the base of the traction device.
  - b. On top of the rolled edge - traction devices must be dulled and be no higher than 1/4 inch above the top of the rolled edge of the running board.
  - c. The traction device may extend a maximum of 1/4 inch beyond the side of the rolled edge for the purpose of mounting. There shall be no sharp edges to side of the rolled edge.
2. Running board extensions are not allowed.
3. The rear snow flap must be in contact with the course surface when rider is seated.
4. The rear snow flap must be securely fastened to rear of tunnel assembly.
5. The rear snow flap must be constructed of a semi-rigid material.
6. Snow flaps must overlap the widest part of the rear tunnel opening by at least 1" on each side.

## **LEGAL FUEL REGULATIONS**

1. A contestant appealing a fuel disqualification must bear the expense of the fuel analysis and handling.
2. Only commercially available fuel that meets the WTC guidelines will be legal. Fuel may be mixed with petroleum, organic, vegetable, or chemical base lubricants. The use of any additives providing power boosting characteristics are strictly forbidden. It is up to the team or rider to have their fuel tested before competing. Any rider competing with illegal fuel will be disqualified, penalized, and/or fined.

## **PRE-RACE SAFETY INSPECTION**

1. Pre-race safety inspections are mandatory for Rider and Machines at all races. Pre-race inspections do not certify that the machine is qualified or constituted as legal for class participation. Post-race technical inspections determine machine qualification.
2. All aspects of modification are contingent upon safety inspection by the Technical Director. The Technical Director may remove any machine from competition that does not meet safety requirements.
3. Damaged or broken safety equipment (not including tether switch) not detected during a race is not grounds for disqualification after completion of that race unless the rider is black flagged during the race in question.

## **POST-RACE INSPECTION**

1. Riders and machine will report directly to the Technical Inspection area immediately after the race is completed. The Technical Director will determine which riders and machines are to be inspected. Any rider bypassing, not stopping, or refusing Post Race Inspection will be disqualified.

## **MANDATORY TEAR DOWN**

1. The Technical Director will select the machines for mandatory teardown and inspection. The machine's rider will be notified at the completion of the event if he/she is to report to tear down.
2. Any rider refusing a teardown will be disqualified.
3. The rider and/or the rider's mechanic will perform the teardown to the point required by the Technical Director.
4. The rider and/or the rider's mechanic will be the only people allowed in the Technical Inspection area. The Technical Director will determine who and how many people allowed in the Inspection area.
5. Inspected machines will not be reassembled by the technical director.

## **STOCK & SUPER STOCK CLASS REGULATIONS**

The machine must have the original OEM engine, hood, intake, exhaust, frame, track, suspension, cowl and drive. Named components must be of the same model and year, or properly filed OEM replacement parts.

### **FRAME & BODY**

1. All chassis will have OEM tags and/or serial numbers affixed to the frame.
2. Reinforcing, by welding and/or bracing will be allowed.
3. Removal of any material from total machine by means of heat, acid, drilling, grinding, sand blasting, peening, substitution or total elimination will not be allowed.
4. Access openings will be allowed for component removal or service but closures must be made of original type materials.
5. Vents/scoops must be OEM for the model. Vents may be covered or closed. No additional vents or scoops may be added. Crankcase and/or brake cooling ducts must remain within the confines of the sled and only use an existing vent opening.
6. Hoods may not be removed.
7. Windshields must be equal to an OEM windshield in dimension and be mounted in OEM location. Windshields must have a safety edging. Windshields may be altered for handlebar movement. The windshield must be intact at the start of each race day.
8. The seat must remain OEM for the year and model. Padding may be added or subtracted to improve rider comfort and safety. Seats may be lowered but must be at least five (5) inches thick at its minimum dimension. Height will be measured from top of original tunnel to top of seat in rider-less state. The seat must be upholstered. The seat may not be moved forward, backward, or sideways of the OEM location. If modifications are done to the seat, the original seat base must be retained
9. Hood insulation may not be removed.
10. Skid plates may be added for protection of sled bottoms. Skid plates must be securely fastened.
11. Tunnel protective wear strips may be added, removed or altered.
12. Bumpers may be added, removed or relocated but cannot create a safety hazard.
13. Fuel tank must be OEM as supplied with the machine or optional tank filed by the OEM manufacturer. The optional filed tank must be of equal dimensions and capacity to that supplied by the original OEM manufactured tank. An OEM fuel tank is the only tank that can be used to supply fuel to the engine.
14. Fuel lines must be free of obstructions by other machine components.

## **ENGINE**

1. All engines will have an OEM tag and/or serial numbers affixed to the engine.
2. No component of the engine may be altered, changed or enlarged from the engine manufacturer's original stock specifications, nor may any additional components be added to the engine. Blueprinting will not be allowed. No removal of material whatsoever will be allowed. This is to include polishing, port matching, deburring, glass or sand blasting surfaces or material removal for the purposes of engine balancing or other reasons.
3. Stock OEM for the model pistons only are allowed for replacement.
4. There will be no more than one (1) cylinder base gasket to a cylinder
5. OEM carburetor slide valves and replacement jet options will be allowed.
6. An adequate return spring on the throttle is required.
7. Choke mounting location may be moved for the rider's comfort. The choke system may be disconnected.
8. No pressure charging is allowed, engines must be normally aspirated.
9. The engine air intake system is to include any: cowl vents, air box, noise reducing foam (cowl vents & air box), carb boots, carburetors, clamps, rotary valves, reed valves, carburetor flanges and oil injection nozzles that are original OEM equipment for that make and model. No changes or modifications will be allowed to any part of the engine air intake system or mounting location.
10. Deep snow cover/foam must remain in place.
11. The engine must remain in the original mounting location.
12. No pressurization of fuel tanks or lines is allowed.
13. Fuel lines must be free of obstructions by other machine components.
14. No additional engine cooling systems are allowed.
15. If oil injection is OEM standard, oil injection system and all associated components must be installed in their OEM configuration, but may be disconnected. Oil injection nozzles may be removed or plugged. Premixed oil and fuel may be used.
16. Spark plugs do not have to be OEM.
17. The exhaust system is to include any header flange or pipe, Y pipe, expansion chamber, pulse charger, muffler and tail pipe that are original OEM equipment for that make and model.
18. No changes or modifications will be allowed to any part of the exhaust system or mounting locations.

## **DRIVE**

1. Machines must have the original OEM variable speed converters supplied by the manufacturer for year and model or a part that has superseded the original OEM part for the model.
2. Any springs, weights or ramps may be used in the primary (drive) clutch.
3. No machining allowed on either the drive or driven clutches.
4. In the primary clutch, metal may be removed but not added to ramps or flyweights by welding.

5. Any springs, cams, or shim washers may be used in secondary (driven) clutch.
6. Drive belts do not have to be OEM.
7. Any drive chain and sprockets may be used.
8. Chain case must be original OEM for the year and model, must remain in the original mounting location. The chain tensioner may be changed to any OEM equipment.
9. Track drive axle and sprockets must be OEM for the year and model. Sprocket diameter may be trued round.
10. Brakes may be changed or altered, but must be operational at all times. No dual brakes are allowed. Brake components must be commercially available and remain in the OEM location. Liquid cooled systems allowed. Brake disk may not be modified beyond manufacturer's specs. OEM diameter and thickness must be maintained. The brake disk material may not be substituted with any other material.
11. The brake control handle must remain in OEM location on the left, rear side of the handlebar.

### **SKI SUSPENSION & STEERING**

1. A maximum sled/chassis width will be **44** inches measured from one ski carbide cutting edge to the opposite ski carbide edge under the spindle.
2. No substitution of material is allowed on front suspension and must remain in original mounting location in both bulkhead and spindle housing.
3. Maximum overall width, measured from outside edge of ski to opposite ski outside edge, is 51.5 inches.
4. Sway bar may not be relocated. Sway bars must be OEM for the model, or another sway bar from another stock qualified model within the brand. Sway bar may be disconnected or removed. If disconnected and not removed, all remaining components must be secured so as not to endanger the rider or other riders.
5. Limiting devices of any length may be used.
6. Reinforcement of components will be allowed by welding or bracing. Structural integrity must be maintained.
7. Spindles may not be shortened.
8. Any spring may be used on the suspension and may be shortened, heated or removed.
9. Any shock absorber, fluid, gas (non-flammable), or fluid metering valves may be used and may be shortened, but not lengthened.
10. Handlebars must be intact at the start of each race day. Any commercially available handlebars are allowed and may be altered to fit the rider. Open ends must be capped. Handlebars must be padded. Column or post must remain in its OEM position. Grips and controls may be modified. Any throttle lever and/or mounting block may be used, but must be located on the right side of the handlebar, facing rearward, and operated by the rider's right hand thumb.

## SKIS & SKI RUNNERS

1. Aftermarket skis are allowed. Skis must be commercially available. Ski, ski loop and ski runner must conform to General Rules and Regulations.
2. May reinforce skis on the top side only. Modifications to the under side of ski is allowed. Contact ski manufacturer for approved modifications.
3. A maximum ten (10) inch turning material per ski is allowed. The turning material must be continuous. Any ski edge with more than ½ inch turndown is considered a cutting edge.

## TRACK SUSPENSION

1. Suspension must be OEM for the make and model. Suspensions must remain in the original mounting location, or optional locations pre-drilled in backing plate by the manufacturer. Suspension components must remain in original location or optional locations filled by the manufacturer. No substitution of material is allowed.
2. Rails may not be bent or shortened.
3. Rear idler and marginal snow wheels may be added or removed. The wheel diameters may be trued round.
4. Slide rail lubrication will not be allowed.
5. Any hyfax is allowed.
6. Any shock absorber, fluid, non-flammable gas, or fluid metering valves may be used. The shock may be shortened, but not lengthened.
7. Any springs are allowed. The springs may be removed and replaced with some other type of cushion device.
8. Springs may be shortened or heated.
9. Suspension components and mounting location holes may be reinforced.

## TRACK & TRACTION

1. The track must be OEM for the model or a designated and approved optional track specifically for the model. **Designated or optional tracks must be the same length and width as original.** (OEM may designate up to one optional track per model. Original Manufacturers of tracks may designate up to one (1) track per snowmobile brand. Any approved track that is not commercially available to the rider (not in inventory) within 5 days will be banned from racing.
2. In the 440 Stock Class snowmobiles that are 2005 models or newer must use the OEM for the model track. Older models comply with rule number 1 (above).
3. Identification numbers affixed or molded into tracks by the molder must remain completely visible and unmodified. No traction device or other item may be installed over the identification numbers on the track. Identification numbers include model number, serial number and/or any other information applied to the track by the original manufacturer.
4. Configuration of the track, including length and width, must allow for installation without modification to the track, frame, tunnel, suspension or drive components.

5. The track must remain as manufactured. No trimming or shaving of the track grouser bars, rubber studs/snow lugs will be allowed
6. No cleats or partial cleats may be added.
7. Any commercially available guide/track clips may be used. No traction devices may be added to track clips.
8. Tracks may not be reversed, unless approved by manufacturer.
9. Studs **must be steel** and cannot be more than 3/8 inch above the highest point of the lug in front of it.

## **IGNITION & ELECTRICAL**

1. All machines must be equipped with a safety disconnection (tether) and be operable at all times. This will be the responsibility of the rider. Tethers must be used and attached to the operator whenever the engine is running, this includes pit areas, staging and the race course.
2. The maximum tether cord length will be five (5) feet. Verification of tether cord length will be determined at tether cords fully extended length.
3. The tether cord will be securely fastened to the rider.
4. The tether switch will be securely mounted in a location on the machine other than on the handlebars.
5. A functional and operational secondary safety shutoff switch (kill switch) that will terminate ignition is mandatory in all classes. The switch must be located on the right side of the handlebar.
6. Wiring may be removed.
7. Instrumentation may be added but must not provide a safety hazard. Data acquisition systems are allowed. Instrumentation may be disconnected but not be removed.
8. Head, tail and brake lights must be original OEM equipment and must remain in original mounting location. Must be operational at the start of the race. Light failure during a race is not grounds for disqualification. The tail light cannot be battery operated. **Head and tail lights do not have to be taped. Headlights must be clearly visible while the engine is running.**
9. Ignition must be OEM for the year and model.
10. CDI/ECU module may be reprogrammed.
11. Fixed ignitions may be moved (+ or -) four (4) degrees.
12. No aftermarket device allowed which interrupts ignition for the purpose of launch control or traction control unless OEM for the model.
13. Battery operated electric fuel pumps must be connected to the tether switch. This includes electrically controlled fuel injection systems.
14. Wet cell must be enclosed in a non-conductive battery box. The positive terminal must be shielded. The battery box must be securely held in place.

## **MODIFIED/OPEN REGULATIONS**

### **GENERAL RULES**

1. All machines must meet the safety guidelines.
2. All competing machines may be individually inspected by race officials for safety and structural soundness.
3. All machines must be equipped with a tethered safety kill switch which will stop the motor and any electric fuel pumps being used. The tether cord must be securely attached to the operator at any time the motor is running.
4. The minimum weight of the machine shall be four hundred and thirty (430) lbs. Vehicle weight may be checked at any time.

### **FRAME & BODY**

1. All machines must have a hood, belly pan, contoured seat and an enclosed tunnel. Windshields are recommended but not mandatory.
2. Chains, pulleys and exposed moving parts will be isolated from the rider and other competitors by a shield capable of retaining all accidental explosions and component impacts. The integrity of protective shields shall be at the Tech Director discretion. No holes may be drilled in protective shields.

### **ENGINE**

1. 600cc 2 stroke, 1050cc 4 stroke maximum displacement
2. Must be from a Stock qualified model.
3. Normally aspirated.
4. No nitrous oxide systems.
5. A functionally silenced exhaust system is required.

### **DRIVE**

1. Any clutch system is allowed.
2. If stock clutches are used, clutch cover equivalent to stock or better is allowed.
3. For all others, the clutch cover must be separate from cowl configuration and cover clutches to center of bolt or below. Clutch cover guards must be .090 inch 6061 T6 aluminum or equivalent steel material (other materials not allowed) and be covered with six (6) inch belting. If clutch cover is constructed of .125 inch aluminum, belting is recommended, not required. Machines with removable side panels may bolt clutch cover guards to side panel to meet this requirement.
4. On machines which comply, in all respects, with the stock class rule, the stock belt guard may be used when moving up to an Open class.

## **SKI SUSPENSION & STEERING**

1. **Maximum ski stance, measured center to center of carbide cutting edge under the spindles, is 44.0 inches.** Carbides must be centered on the ski board.
2. Turning carbide length is unlimited.
3. The handlebar ends must be capped.
4. Handlebars must be padded.

## **TRACK & TRACTION**

1. Track must be one piece molded and commercially available.
2. There is no minimum track width.
3. No track holes larger than 7mm.
4. Traction lugs may be trimmed to within 1/4 inch of track rods and fabric. If any lugs in the center portion of the track are trimmed, no traction products are allowed on the track. If outer band lugs are trimmed off at a forty-five degree (45°) angle, track studs may be used according to traction rules.
5. Stud ruling is the same as stock classes.

## **IGNITION & ELECTRICAL**

1. Head lights are not required
2. Taillight assembly must be from a stock qualified machine. Tail lights and brake lights are required.

## **CONTROLS**

1. Brakes shall be operative at all times. The brake lever must be located on the left side of the handlebar.
2. Throttle controls are the same as stock class.

***Multiple Violations of the same rule may result in suspension or disqualification.*** These regulations are comprised of definitions and allowable modification or alterations. If a definition, modification or alteration is not cited then it is to be construed that no modification, alteration or change can be made to the component unless it is specifically approved by the rules committee. Existing rules may be revised, or new rules may be added after this rulebook was printed. For the latest updates, please check the website at [www.winterthunderracing.com](http://www.winterthunderracing.com).

## **RIDERS UNDER 18 YEARS OF AGE**

1. Riders under the age of eighteen (18) are **required** to have an original notarized Minor Waiver on file at **WTC Headquarters** before they will be allowed to compete.
2. Riders under the age of eighteen (18) are required to sign the Minor's Assumption of Risk Acknowledgement at driver check in at each event. No Exceptions!
3. Riders under the age of eighteen (18) must have a parent or legal guardian with them at rider check-in. If a parent or legal guardian is not able to attend rider check-in, an original notarized Power of Attorney form must be presented with proper ID at driver check-in. Please see [www.winterthunderracing.com](http://www.winterthunderracing.com) for the appropriate form.
4. Any rider or parent caught falsifying a rider's age or producing false documents will be suspended for the remainder of the season.
5. A Junior Novice may not apply for advancement.
6. A Junior 14-15 may apply for advancement to the Junior 16-17 class with proper verification and documentation.
7. A Junior 16-17 may apply for an advancement to the Sport or Semi-pro class with proper verification and documentation.
8. A Junior rider may advance **ONLY** with written permission of WTC. The rider must advance up the classes in a natural progression and if he/she is granted permission to run in the Sport class.
9. Advancement is not guaranteed and is left up to the sole discretion of WTC, who will use any and all means available to them to certify that a rider is capable beyond a reasonable doubt.

## **JUNIOR CLASSES AGE 14-17**

### **Designated Snowmobiles**

- Fan models, 600cc or less
- Liquid Cooled, 500cc or less
- **EFFECTIVE 10-1-09**

**14-15 & 16-17 Jr. Class may use "Throttle Restricted" 600cc Super Stock models. "Throttle Restricted" kits are available only from the manufacturer.**

1. Jr. 14-15
  - a. This class is for kids that are 14 years old and not yet 16 years old. (It is not open to younger or older kids.)
  - b. A rider who's 16th birthday falls during the race season may continue to enter the Jr. 14-15 class provided they entered the class earlier that season.
2. Jr. 16-17
  - a. This class is for kids that are 16 years old and not yet 18 years old. (It is not open to younger or older kids.)
  - b. A rider who's 18th birthday falls during the race season may continue to enter the Jr. 16-17 class provided they entered the class earlier that season.

## **JUNIOR CLASSES AGE 10 - 15**

(Only designated Fan models, 600cc or less, are eligible for competition.)

1. Junior Novice (Age 10-14)
  - a. For true novice riders, 1st or 2nd year riders on designated sleds.
  - b. Upon placing 1st, 2nd or 3rd in the year end points, rider must advance to Junior (Age 10-13) or Junior Fan (Age 10-15)
2. Junior (Age 10-13)
3. Junior Novice (Age 10-13)
  - a. This is an ISOC Affiliated Class for yearend competition at Grand Geneva.
4. Junior Fan (Age 10-15)

A Junior Rider **cannot** advance to Junior 14-15 racing until his/her 14th birthday. Any riders caught trying to run an age specific class without proper approval from WTC may be suspended from racing any WTC sanctioned event for one full year.

### **GENERAL COMPETITION & SAFETY RULES**

1. If it isn't stated in this book that it can be done, consider that it cannot be done.
2. All machines must comply with the General Requirements section as specified.
3. All machines must have the original OEM (or factory designated replacement) engine, hood, track, frame, cowl, gas tank, carburetion, air box, suspension and variable speed converter supplied by the manufacturer for that particular model.
4. Factory supplied options are not allowed.
5. Engine kits are allowed.

### **FRAME & BODY**

1. OEM windshields for the model or factory options are allowed. The windshield may be altered for the rider's safety and comfort, but must extend five (5) inches above the highest point of the hood. If the original OEM windshield for the model is lower than five (5) inches it may be used. Windshield must have safety edging.
2. Windshields must be intact at the start of the race.
3. Windshield must remain in OEM mounting location.
4. Removal of stock air vent grills including intake or exhaust are not allowed.
5. No additional venting is allowed.
6. Protective taping or screening will be restricted to the external opening only.
7. Seat and fuel tank must remain OEM for the year & model (seat color optional).
8. The OEM fuel tank is the only tank that can be used for fuel. No optional fuel tanks allowed. The lubrication tank cannot be used as a fuel tank.

### **ENGINE**

1. No component of the engine may be altered, changed, reduced or enlarged from the engine manufacturer's original stock specifications, nor may any additional components be added to the engine.
2. Maximum cylinder overbore for wear cannot exceed .020 inches (1/2mm).
3. Replacement pistons must be stock OEM for the model.

4. Blueprinting of engines is not allowed. No removal of material will be allowed. This is to include polishing, port matching, deburring, glass or sand blasting surfaces or material removal for the purpose of engine balancing or other reasons.
5. There will be no more than one (1) cylinder base gasket to a cylinder. No changes in engine dimensions can be made by gasket adjustments.
6. A maximum of one (1) venturi per cylinder will be allowed.
7. OEM carburetor slide valves and replacement jet components without modification will be allowed in all stock classes. No modification to carburetor body will be allowed.
8. Engine must retain its original cooling concept (fan or free air cooling circuits cannot be modified or removed, except for quick disconnects.)
9. The oil injection pump must remain in place and functional. Lines may be removed and plugged, premix gasoline may be used.
  
10. The OEM exhaust system for the model must be furnished complete on the machine. The exhaust system must be fully contained within the confines of the cowl or the chassis and the direct exhaust emissions pipe must not protrude more than three (3) inches beyond the chassis or hood.
11. Spark plugs do not have to be OEM equipment.
12. No additional fuel pumps may be added to the stock carburetors.
13. The throttle may be changed but must be thumb operated with a direct mechanical operated mechanism.

## **DRIVE**

1. Primary (drive) and Secondary (driven) clutches must be OEM for make, model, and year. Clutch components may be interchangeable between any brands providing there is no modification to the clutch required to make these components fit.
2. Any combination of factory springs, weights, ramps, etc. may be used
3. In the primary clutch, metal may be removed, but not added, by welding to ramps or flyweights.
4. Any cam and spring may be used in the driven clutch.
5. Drive belts do not have to be OEM.
6. Any drive chain or sprocket may be used.
7. Brakes must remain OEM for the model and year.
8. The brake lever may be modified or changed to fit the rider but must remain hand operated with a direct mechanical operated mechanism. The function of the brake system may not be compromised. The brake lever must not extend beyond the end of the handlebar.

## **SKI SUSPENSION & STEERING**

1. **Any steel spring suspension springs may be used. NO TITANIUM springs allowed.**

2. Limiter strap allowed to limit travel, but must maintain two (2) inches of travel (no locked suspensions).
3. No device may be added that stops the suspension from functioning (no locked suspensions).
4. Any commercially available handle bar is allowed. Handle bar extensions will be legal. All ends must be plugged.
5. Any shock absorber, fluid, gas (non flammable), or fluid metering valves may be used.

### **SKIS & SKI RUNNERS**

1. Aftermarket skis are allowed. Skis must be commercially available.
2. Must conform to the General Requirements, Skis & Ski Runners section.
3. May reinforce skis on the top side only. Modifications to the under side of ski is allowed. Contact ski manufacturer for approved modifications.
4. Skis and ski loops must conform to the ski rules in the GENERAL RULES AND REGULATIONS section. Skis and ski loops must be intact at the start of each race. In the interest of safety, a rider may be black flagged if a ski loop is damaged in such away as to cause a hazard. Ski loop leading edges not one (1) inch in width or not meeting the minimum radius rule must be padded.

### **TRACK SUSPENSION**

1. Suspension must be OEM for the make, model and year.. Must remain in original mounting location or optional locations pre-drilled in backing plate by the manufacturer. Suspension components must remain in original location or optional locations filed by the manufacturer. No substitution of material allowed.
2. Rails may not be bent or shortened.
3. Rear idler and marginal snow wheels may be added or removed along with mounting brackets from an OEM wheel kit. Wheel diameters may be trued round.
4. Slide rail lubrication will not be allowed.
5. Any hyfax is allowed.
6. Any shock absorber, fluid, gas (non-flammable), or fluid metering valves may be used. May be shortened, but not lengthened.
7. Any **steel** spring is allowed. **NO TITANIUM springs allowed.**
8. Springs may be shortened or heated.

### **TRACK & TRACTION**

1. Track may not be reversed, unless approved by manufacturer.
2. OEM track guide clips may be added.
3. Track must be OEM for the make, model, and year of machine or designated option by the manufacturer.

### **IGNITION & ELECTRICAL**

1. Head, tail and brake lights must be original OEM equipment and must remain in the original mounting location. They must be operational at the start of a race. Light failure during a race is not grounds for disqualification. Tail lights cannot be

- battery operated.
- 2. Stock machines will be allowed to add or remove tachometers, speedometers or heat gauges, however, the openings must be closed.
- 3. Spark plugs, spark plug wires and connectors do not have to be OEM.
- 5. Electric start components may be removed.

### **300CC CLASSES FOR RIDERS AGE 8-12**

#### **Designated Snowmobile - 2006-2008 Ski-Doo Freestyle 300 and Tundra 300**

- 1. Transition (Age 8-12)
  - a. This class is for kids that are 8 years old and not yet 13 years old. (It is not open to younger or older kids.)
  - b. This is an ISOC Affiliated Class for yearend competition at Grand Geneva.

The snowmobiles will be raced as produced with only the following changes allowed:

- a. Any ski runners that comply with Snocross rules are allowed.
- b. Any commercially available handlebars and handlebar risers may be used.
- c. Carburetor tuning that is allowed in Stock Snocross is allowed.
- d. Clutch tuning that is allowed in Stock Snocross is allowed.
- e. Chain case sprockets and chain may be changed.
- f. On the Ski-Doo Freestyle 300, designated, optional ski suspension and track suspension springs may be used. Springs must be designated by the ISR Rules Committee. On the Ski-Doo Freestyle 300, designated, optional ski suspension and track suspension shocks may be used. Designated part numbers are: 860429500 and 860429400
- g. No other changes allowed.

NOTES:

## **120 / 4 STROKE RACING**

The intent of these rules is to establish a venue in which all qualified riders and machines can compete at their own level. These rules are definitions and guidelines for allowable modifications or alterations. If a definition, modification or alteration is not cited, then it is to be construed that no modification, alteration or change can be made to the component unless it is specifically approved by the rules committee.

**These rules are guidelines, all competitors MUST check with the every circuit prior to racing as rules may vary slightly within each region.**

### **ELIGIBLE RIDERS**

Age 4-12 for Stock class

Age 6-12 for Champ One year experience required

Age 6-12 for Open One year experience required

### **ELIGIBLE SNOWMOBILES**

Arctic Cat Z 120

Ski-Doo Mini Z

Polaris XCR 120

## **120/4 STROKE CLASSES**

<b>Maximum speed per class is as follows</b>	
<b>Winter Thunder Classes</b>	<b>ISOC Affiliate Classes</b>
120 Stock 4-5 - 12 mph	120 Stock 6-7 - 15 mph
Box Stock - 12 mph	120 Stock 8-12 - 18 mph
Improved Stock - 15 mph	120 Champ 6-12 - no limit
Pro Stock - 20 mph	
Open - no limit	

### **GENERAL SNOWMOBILE RULES**

All 120/4 Stroke Classes are stock based classes. In stock based classes, no change or modification can be done to the stock qualified snowmobile unless specially allowed by these rules. If these rules do not specifically allow a change or modification, then it must be assumed that the change or modification is not allowed.

1. No traction products allowed.
2. Handlebar riser may be added. Structural integrity must be maintained.
3. All metal ski hoops must be padded.

### **GENERAL COMPETITION & SAFETY**

1. Rider entry into an event is open to any qualified individual. The sanctioning body has the authority to evaluate all riders to determine their qualifications.

2. Both the owner and rider are responsible to ensure that their snowmobile and rider safety equipment conform to all of the rules for the class in which they have entered. Any rider that does not meet the requirements listed will be subject to disqualification and forfeiture of any prizes or awards, plus eligibility for the next two (2) races.
3. Teardown will be at the discretion of the 120 Tech Director.
4. If it isn't stated in this section that it can be done, consider that it cannot be done.
5. The Race Director and/or Tech Director have the authority to determine structural integrity.
6. While rider is on the course, radio communication between rider and crew is not allowed.

### **MANDATORY RIDER SAFETY EQUIPMENT**

1. Snell 2005 or newer rated helmet. Must follow the rider protective guidelines.
2. Eye Protection, either a shield or goggles.
3. Shin Guards and Knee Pads
4. Tek-Vest (Upper body protection)
5. Above ankle Boots
6. Mouth guard

### **120 STOCK CLASS RULES**

1. The snowmobile must have original OEM (or factory designated replacement) engine, hood, track, frame, cowl, gas tank, carburetion, air box, suspension and clutch supplies by manufacturer for the particular model. Factory designated replacements allowed.
2. Engine RPM and vehicle speed may be monitored at the discretion of the Race Director.

### **ENGINE**

1. All governor parts must be intact, in place, but do not have to be functional. If a competitor disables the governor, the top speed must not exceed the maximum rating for the class.
2. Replacing chain tensioner with a commercially available aftermarket tensioner is allowed.
3. No component of the engine (including head, valves, cam, and valve springs) may be altered, changed, or enlarged from the engine manufacturer's original stock specifications nor may any additional components be added to the engine.
4. Blueprinting of engines is not allowed. No removal of material whatsoever will be allowed. This is to include polishing, port matching, deburring, glass or sand blasting surfaces or material removal for the purpose of engine balancing or other reasons.
5. No changes in engine dimensions can be made by gasket adjustments.
6. Spark plugs do not have to be OEM stock.
7. No carburetor/air silencer changes allowed. Only foam maybe added / removed from air box.

8. Jetting changes are allowed.
9. Remote adjustable main jet system allowed.
10. The OEM exhaust system for the model must be used in its entirety. The exhaust system must be fully contained within the confines of the cowl or the chassis and direct exhaust emissions from the enclosed area. Muffler components and/or silencing material must be intact at all times.
11. In order to equalize performance between manufacturer's models the following changes are allowed.
  - a. Ski Doo racers are allowed to change valve springs to Honda P/N 14751-ZE1-000
  - b. Arctic Cat 120 racers are allowed to upgrade to the 120 Sno Pro kit consisting of valve springs and cam. (spring number 129-21-90700). The kit must be used in its entirety.
12. To enhance durability, plastic governor gears may be removed in classes, which allow governor to be disabled.
13. To enhance the durability of the Honda GX 120 engine used in production Ski-Doo Mini 120 and Mini-Rev snowmobiles, a valve "rotator" Ski Doo part number H14781-ZE1-000 may be fitted on the intake valve.

#### **DRIVE**

1. Brake must be functional and operational at all times.
2. OEM drive clutch must be used with no modifications.
3. Stock drive clutch engagement must be maintained.
4. No belt drives allowed.
5. Chain guard must be in place.
6. Any gear ratio may be used in all classes.
7. Any chain tensioner may be used.
8. #35 chain and gears may be used.
9. Number 40/420 drive chains allowed.

#### **SKI SUSPENSION & STEERING**

1. Front suspension must be OEM stock.
2. Front suspension must remain in its stock location.
3. Ski widening devices and/or height adjustment devices are not allowed in Stock classes unless furnished as OEM and properly filed.
4. Suspension travel may be limited by means of limit straps only. Minimal suspension travel must be maintained. No rigid suspensions allowed.

#### **SKIS & RUNNERS**

1. Ski must be OEM for the model and year or a commercially available aftermarket ski with a minimum overall length of 20 inches. Carbide ski wear bars may not be used.
2. Ski suspension components must be OEM.
3. Ski tips must have ski loops. Steel ski loops must be padded.

## **TRACK SUSPENSION**

1. The complete suspension must be used as furnished and filed by the manufacturer.
2. Commercially available marginal snow wheels may be added to the slide rails. (Rear axle idler wheels must remain OEM for the model).
3. Suspension travel may be limited by means of limit straps only. Minimal suspension travel must be maintained. No rigid suspensions allowed.
4. Slide rail lubrication systems not allowed.

### **All 120 classes ISOC Addendum**

#### **1. Rear suspension shock allowed**

## **TRACK & TRACTION**

Any commercially available molded rubber track may be used. Track must fit within frame and suspension without modification to frame, suspension, or drive. Track must be used as produced by the molder. Hyfax allowed.

1. No traction products allowed.

## **FRAME & BODY**

1. OEM hoods only. OEM hood may be painted any color except orange.
2. Windshield may be trimmed. Exposed edges of windshield must have safety bead.
3. Steel front or rear bumpers must be padded.
4. All sharp edges must be padded.

## **IGNITION & ELECTRICAL**

1. An ignition tether switch must be installed and functional. Tether switch can be located anywhere except the handlebar.
2. Headlight and taillight must be OEM for model and **taillight must be on whether engine is running or not.**
3. Ignition and lighting systems must be OEM for model. No modifications allowed.
4. Tachometers and/or Data acquisition systems allowed.

## ***120 IMPROVED STOCK CLASS RULES***

### **IMPROVEMENTS**

1. Modified Pipe
2. Modified Head (No Oversized Valves)
3. Adjustable Main Jet only.
  - a. Velocity stack allowed
  - b. Carburetor can-not be bored or ported.
5. Clutch and Gears ( no belt drive )
6. Rear Suspension
7. Front Suspension / Must maintain stock OEM Width
8. 93 Octane Gas allowed.
  - A, No Race Fuel
9. 5 tooth drivers may be used.

## ***120 PRO STOCK CLASS RULES***

## **IMPROVEMENTS**

1. This class adopts all Champ 120 Class rules with the following exceptions:
  - a. NO Belt drives.
  - b. Maximum speed 20 mph.

## **CHAMP 120 CLASS / 4 STROKE RULES**

### **GENERAL**

1. Snowmobile must be a 120/4 stroke model that complies with the General Rules and Regulations section.
2. Engine, frame, hood, must be OEM for the model.

### **ENGINE**

1. Must start with OEM filed 120/4 stroke engine.
2. Engine components allowed for modification or change from OEM.
  - a. Cam shaft – maximum .290 inch lift
  - b. Valves and seats
    - i. Maximum intake valve diameter 25.2mm
    - ii. Maximum exhaust valve diameter 5.5mm
  - c. Valve springs and retainers
  - d. Tappets and push rods
  - e. Governors may be removed
3. Engine overbore may not exceed .020" (.50mm) of standard bore size for the model.
4. Engine stroke must be stock as manufacturer's filed specifications.
5. Engine components allowed to be modified but must begin as OEM for the engine model.
  - a. Bearings
  - b. Connecting rod
  - c. Piston and Rings
  - d. Gaskets
  - e. Cylinder head
  - f. Crankcase and cylinder
  - g. Rocker arms
  - h. Intake manifold
6. Crankshaft journal may be turned down to allow for connecting rod bearing inserts.
7. Carburetor can be bored and modified, but must begin as OEM supplied for engine model.
8. A snowmobile type diaphragm fuel pump may be added, a pulse fitting to run pump may be added to intake tract.
9. Any functionally silenced exhaust system may be used. Outlet pipe must point downward and not protrude beyond machine width.

### **FUEL**

**Only commercially available fuel that meets the WTC guidelines will be legal. Fuel**

may be mixed with petroleum, organic, vegetable, or chemical base lubricants. The use of additives which provide power boosting characteristics, are strictly forbidden. It is up to the team or rider to have their fuel tested before competing. Any rider competing with illegal fuel will be disqualified, penalized, and/or fined.

### **IGNITION & ELECTRICAL**

1. Ignition system must be OEM for model.
2. Flywheel can be lightened.
3. Lighting coil may be removed.
4. Any commercially available flywheel may be used.
5. An ignition tether switch must be installed and functional. Tether switch can be located anywhere except the handlebar.
6. **NO** electric start systems will be allowed in Snocross racing.

### **DRIVE**

1. Clutching is open. CVT type transmission allowed. Drive components must be commercially available.
2. A metal clutch / chain cover must be in place at all times during operation. It must cover clutches, gears, belts, chains, starter cups, and any other rotating components.
3. Brakes must be properly operable at all times.
4. Track drive sprockets may be modified or changed.

### **SKI SUSPENSION AND STEERING**

1. Suspension must maintain OEM concept (i.e. trailing arm, "A" arm, etc.) Ski suspension and steering may be changed or modified. Materials and components must meet or exceed OEM strength and structural integrity. Must maintain suspension travel with driver seated. No rigid suspensions.
2. The structural integrity of the steering and suspension systems must be maintained.
3. Maximum ski stance is 34 inches (measured between ski runner cutter edges).

### **SKI AND SKI RUNNER**

1. Skis may be changed to commercially available aftermarket skis.
  - a. Minimum length for Snocross is 20 in.
  - b. Ski loop must conform to GENERAL RULES AND REGULATIONS.
2. Ski runners must meet competition and safety requirements for snocross racing.

### **TRACK SUSPENSION**

1. Track suspension may be altered, relocated or replaced. Structural integrity must be maintained.
2. Suspension must maintain a minimum of 2" of usable travel with rider seated.
3. Track and track suspension must fit and be mounted within the confines of the OEM tunnel.

## **TRACK AND TRACTION**

1. Track must be OEM for a 120/4 stroke model from any snowmobile manufacturer.
2. Track may not be reversed.
3. No traction products allowed.

## **FRAME AND BODY**

1. Snowmobile length must not exceed OEM for the model length by more than 2 inches (ski loop to rear of tunnel)
2. Overall body width must be within 2 inches of OEM for the model body width.
3. Bumpers must be padded (no sharp edges exposed)
4. Snow Flap must be in contact with the course surface when driver is seated.
5. Belly pan required.
6. **Bulkhead may be modified or replaced; it must remain within 1 inch of the length and 1 inch of the width of the OEM bulkhead.**

## ***120 OPEN CLASS RULES (aka Outlaw)***

### **IMPROVEMENTS**

1. ALL Champ 120 Class rules.
2. Motor must start out as a 205cc or less
3. Motor must not exceed 220cc after modifications
4. Must have stock type ignition
5. Must have flywheel and magneto
6. Race Fuel is allowed
  - a. No Nitrous
  - b. No Alcohol Fuel
  - c. No Turbo
  - d. No Superchargers
  - e. No Oil Additives
7. 4 Stroke Only
  - a. No Liquid Cooled
8. Remote starters are allowed.
  - a. Once the race has been started, sleds requiring a remote start that stall on the track or starting line are considered to be out of the race and will be pulled to a safe area by track personnel.

**These regulations are comprised of definitions and allowable modification or alterations. If a definition, modification or alteration is not cited then it is to be construed that no modification, alteration or change can be made to the component unless it is specifically approved by the rules committee.**

Existing rules may be revised, or new rules may be added after this rulebook was printed. For the latest updates, please check the website at [www.winterthunderchallenge.com](http://www.winterthunderchallenge.com).

### **NOTES:**

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