

### INTERNATIONAL SNOWMOBILE RACING

1527 North Railroad Street Eagle River, WI 54521

262-335-240

# DRAG RACING 2023-2024 GRASS – ICE – SNOW VERIFICATION AND CONTROL

These GENERAL RULES apply to all types of ISR racing sanctions and all classes unless so noted. All participants, racers and crewmembers are required to be fully aware of these regulations and must abide by them.

The rules for competition are intended only as a guide for the conduct of the sport in a uniform manner from region to region.

Safety rules and guidelines contained herein are of utmost importance. All participants must be concerned with safety and be familiar with these rules and guidelines. However, ISR does not warrant, guarantee, or ensure safety even if the rules are enforced and/or adhered to. Moreover, each participant in competition has the responsibility to assess the safety aspects of the facilities and conditions and must assume the risk of competition.

#### MANDATORY EMERGENCY VEHICLE

1. A properly licensed and equipped emergency vehicle (i.e., rescue vehicle or ambulance) must be at the race site to transport injured persons to an appropriate hospital. This vehicle shall have all emergency equipment. Contract arrangements must be made to have a transport situation ambulance on site if a transport is made. Many tracks are now using a track owned ambulance for on-site work. Many times, these vehicles are not certified for transport of patients on the highway. Arrangements must be made for a certified transport ambulance to make the actual patient transport. Racing must not be allowed without an ambulance on the grounds.

#### RULE SUPPLEMENTS

- 1. Rule supplements, additions or corrections shall be announced on the official website. Upon such an announcement the rule changes become effective and enforceable.
- 2. Telephonic race rules conference calls will be followed up with an information letter to the affected affiliates.
- 3. After a rules meeting, any request to reconsider a new rule requires a majority vote of the rules committee to approve a revote. Then, a ¾ majority is also required to change the rule.

#### **CLASS DIVISIONS**

- 1. All class entries will not discriminate based on sex. Any qualified member may participate in the approved classes offered in any sanctioned event.
- 2. A snowmobile will be allowed to race in its respective displacement, or designated performance class, and any larger displacement or performance class, except as noted in specific sections.

#### **REGISTRATION AND ENTRY**

- 1. WAIVER FORMS ARE MANDATORY FOR ALL PERSONNEL IN SECURED AREAS (paddock, staging and track).
- 2. Drive must have registered at race headquarters and signed a waiver before any runs are made (practice or racing). No one, except officially entered drivers may ride or practice on any racecourse on the day of the event.
- 3. No refunds of entry or other fees will be made at sanctioned events after registration is closed, unless the event is cancelled or rescheduled by a ruling of the Race Director, after which time fees will be returned or advanced to the next event in the series.
- 4. Any competitor who pays for race entry or organization membership with a check or credit card is responsible for the payment of all charges should the bank or other institution fail to remit for whatever reason.
- 5. Drivers who fail to complete payment for entry fees are subject to discipline prescribed by the ISR affiliate. Drivers may be suspended for a period of one year from the date on which the debt is paid.
  - a. If the participant stops payment on check or credit card, participant gives up the right to protest or appeal until full payment is made.
  - b. Participants who pass NSF checks must pay entry and prescribed fees in full before the next race or within 30 days, whichever is sooner.
- 6. Insurance fees are not refundable.

- 7. Regional service charges or insurance surcharges are not considered part of entry fee maximums.
- 8. Gate admission fees for driver and crewmembers will be regulated on a regional basis.
- 9. The order of events will be regulated on a regional basis.
- 10. The maximum number of classes a driver can enter per day will be regulated on a regional basis.
- 11. Any class or event can be eliminated when there are less than two (2) official entries at the close of registration.
- 12. All participants in events must be fully familiar with the rules and regulations, plus such rules by Race Promoters that may be specifically applied to any event.

#### **DRIVER AND SNOWMOBILE**

- 1. A driver and his snowmobile (chassis and engine) shall be considered a unit and once the class has begun, neither will be subst qualified on a snowmobile, both must be in the same final event of the class and/or event.
- 2. Engine parts may be replaced during the event, except for the crankcase and crankshaft, which may not be replaced.

#### SPONSOR IDENTIFICATION

1. Anytime the sanctioning organization or sanctioned event has a sponsorship, all members and promoters must meet spon requirements, if drivers' number system is not compromised.

#### **DRIVER IDENTIFICATION**

1. There will be an automatic suspension for drivers who race under another driver's number.

#### **SNOWMOBILE IDENTIFICATION**

1. Regions will determin methoods of idenification of the snowmobile in competition.

#### PRE-RACE SAFETY INSPECTION

- 1. ANY ENTRY IS SUBJECT TO INSPECTION AT ANY TIME UPON REQUEST BY THE RACE DIRECTOR OR TECHNICAL DIRECTOR.
- 2. Pre-race safety inspections are mandatory at all races. Passing a pre-race safety inspection is no guarantee that a snowmobile complies with all rules for the event. Affiliates may allow prerace safety inspections to be conducted at the first race of a series and allow the sled to compete in subsequent events in the series without reinspection if on track records indicate no evidence crashes during competition.
- 3. Only snowmobiles having passed pre-race inspection will be allowed on the racetrack.
- 4. All aspects of modification are contingent on safety inspection by the Technical Director. The Technical Director may remove any snowmobile
- from competition that does not meet safety requirements.

  5. 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 black-flagged during the race in question.

#### MANDATORY TEARDOWN

- 1. Regardless of snowmobile equipment passing prior inspections, compliance with the rules must be made at the post-race inspection.
- 2. Once a snowmobile has completed registration to race it may be inspected at any time.
- 3. Tech Director will select the snowmobiles for mandatory teardown and inspection. Drivers will take their snowmobiles directly to Tech after completing the race. The snowmobile must remain in Tech until released by the Tech Director or a designated member of the Tech staff.
- 4. Driver and/or driver's mechanic will perform teardown to point required by the Technical Director.
- 5. Any driver not reporting to Tech or refusing teardown will be disqualified.
- 6. Inspected snowmobiles will not be reassembled by the inspection group.
- Driver and/or driver's mechanic will be the only two (2) people allowed with the snowmobile in the inspection area.
- The sanctioning organization assumes no responsibility for impounded snowmobiles.

#### **SEALS**

1. Drivers will allow the installation of a seal or seals on the engine and/or body of their racing snowmobiles. To change the seal, mutilate it or try to break it, or re-use it, during the weekend or event where it is installed without the consent of the Race Director, could result in the responsible driver being called before the disciplinary committee for strict discipline. Accidental breakage of the seal must be reported to the Rice Director immediately. Drivers/sled owners will provide and preform the required drilling of fasteners, or engine block tabs for the Tech inspector to seal the unit with a uniform wire/lead seal or other device. Sleds within a series may be sealed by other methods, acrylic torque paint, specialty seals, or digital photos of specific items. Affiliates do not have to honor other affiliates seals.

#### **PROTESTS**

- 1. All formal protests must be made in writing, by a driver, in competition at the event, from the class in question, on a formal protest form, accompanied by a cash protest fee (protest fee may vary by region or circuit) two hundred and fifty dollars (\$250.00) recommended.
- 2. When the official protest is made with the fee, the item to be protested must be stated (a general protest will not be accepted), teardown will not be complete until protest is found to be valid or proven unwarranted. If the protest is valid, the fee will be returned to the protester. If the protest is invalid, the fee will be given to the protested snowmobile owner for the inconvenience (to be accomplished before the snowmobiles are released from teardown).

- 3. There is no need for formal protests in the case of driving 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 assigned official on the course.
- 4. Race Director has the authority to determine the validity of a protest.
- 5. No protests will be accepted that refer to a Race/Technical Director's judgement or decision.
- It shall not be possible to protest or appeal technical inspection equipment, manual /electronic scoring, or manual/electronic timing equipment.
- 7. Protests must be filed within thirty (30) minutes following the completion of the daily event or within thirty minutes following the official announcement of results for the class in question whichever occurs first. Race directors have the authority to increase the time to file a protest for a competitor but may not shorten the time allowed.
- 8. Properly filed protests must be addressed by sanctioning body before finalizing class results. ISR must be informed of the protest in writing immediately after the protest is filed. Electronic method of communication preferred.

#### **APPEALS PROCESS**

The following appeals process shall be applicable for all ISR affiliates and will be the binding operational guide and procedure statement for all affiliates. For any Affiliate that has an internal Appeals Process, the process will only apply to operations inside the association or company and will not have any bearing on race rule interpretation, infractions, misconduct, or other situations that may arise from race activity.

#### **TECHNICAL INFRACTIONS**

Driver or team are found in non-compliance with the rules concerning fuel, sled construction, specific dimensions, materials used, or components used not conforming to the rules for each specific class, the following will be the procedure.

Tech Director or Race Director determines infraction and makes the appropriate decision considering the gravity of the offence. The Director may:

- a. Verbally warn driver or team.
- b. Disqualify driver from event for the class specified.
- c. Disqualify driver from all events entered in days competition.
- d. Fine driver, if affiliate has a fine process in place in the affiliates bylaws or published operational guide, and the fine system is published in their membership documents.
- e. Suspend driver or team for season.

#### ON TRACK INFRACTIONS

Race Director determines infraction and makes the appropriate decision considering the gravity of the offence. The Director may:

- a. Verbally warn driver or team.
- b. Disqualify driver from event for the class specified.
- c. Disqualify driver from all events entered in days competition.
- d. Fine driver, if affiliate has a fine process in place in the affiliates bylaws or published operational guide, and the fine system is published in their membership documents.
- e. Suspend driver or team for season.

If the affected driver feels the decision is not correct, he/she may appeal the decision in the following manner.

- 1. The Appeal must be presented to the affiliate Race Director in writing using the ISR approved form available from the ISR web site. This form must be presented within 30 minutes of the announcement of the disqualification or penalty. Race directors have the authority to increase the time to file a protest for a competitor but may not shorten the time allowed. The Appeal must be accepted by the affiliate.
- 2. The affiliate must within 24 hours convene a meeting of the owner/ management/ officials of the affiliate and review the offense/ infraction. If the offense is upheld, the driver/team can request a further appeal to ISR and ask for a review by the rules group for the discipline. ISR has 5 days to conduct such review with the rules committee of the specific discipline.

If the Appeal is found valid, all points, money, prizes, etc. are returned/ awarded to the driver/team.

3. If the offense is upheld, the Affiliate and the Driver/team must inform ISR of the situation within 24 hours of the alleged infraction. ISR will then, within 5 working days conduct a review of the situation, convene the appropriate rule review group from the proper discipline/aspect and render a decision. The decision of this session is binding and has no further appeal.

Affiliates and Drivers must review the Chain of Custody and submission of components/ fuels/ design concepts presented for the Appeal. If the driver/team does not submit samples, exhibits, photos, etc. of the offending component or fuel, the appeal is considered void, and the penalty stands of the Affiliate does not accept and submit samples, exhibits, photos, etc. of the offending component or fuel, the appeal is considered void, and the penalty is rescinded, and all prize money, awards and points are returned to the driver/team. There is no appeal of any type to this operational chain of evidence and procedure. The Operational Guideline and Appeals Forms are found here:

#### **Download Appeal Forms Here**

Race Operation Infractions Click here Rules Interpretation Issues Click here Business Operation Misconduct Click here

The affected driver/team may ask for a review of a decision or procedure within 30 minutes of the conclusion of the event or race where the infraction is deemed to have occurred.

- 1. The Appeal must be presented to the affiliate Race Director in writing using the ISR approved form available from the ISR web site. This form must be presented within 30 minutes of the announcement of the disqualification or penalty. Race directors have the authority to increase the time to file a protest for a competitor but may not shorten the time allowed. The Appeal must be accepted by the affiliate.
- 2. The affiliate must within 24 hours convene a meeting of the owner/ management/ officials of the affiliate and review the offense/ infraction. If the offense is upheld, the driver/team can request a further appeal to ISR. ISR has 5 days to conduct such review by ISR management and consultants.

If upheld the driver/team has no further appeal. If the Affiliate decision is overruled, all points, money and prizes are awarded to the driver. The ISR decision is binding and has no further appeal, from Driver/Team or Affiliate.

#### **NOTICE**

Driver infractions/ disqualifications in a drag racing, oval racing, Enduro racing, cross country racing, water cross racing, and speed run racing events will be forwarded to all ISR affiliates.

#### **NOTICE**

Drivers, promoters, or any personnel affiliated with ISR snowmobile events who are banned from racing or subject to other major penalties by one affiliate, having completed the hearing process, the decision shall be honored by all ISR affiliates in that discipline.

#### **PRIZES AND AWARDS**

- 1. All prizes, awards and paybacks shall be presented to the official winners or their appointed representatives at the close of the event, unless specifically advertised otherwise as to the time and place of awards.
- 2. Drivers will not be required to attend award banquets, parties, ceremonies, etc., to receive prizes, awards, or pay-backs, although they are encouraged to cooperate as a courtesy to the promoter.

#### PIT AND PADDOCK/STAGING AREA

- 1. Reasonable speeds will be observed in the pit and paddock area. All pit areas are caution zones where utmost in driver awareness is required.
- 2. Hot pit and staging areas are limited to drivers preparing to race and their pit crewmembers. Minimum age for pit crewmembers in these areas is 14 years old. All persons in these areas must have signed a release and waiver for the event.
- 3. There is no minimum age for people in paddock, pit parking and cold pit areas. It is recommended that people in these areas be required to sign a release and waiver.

#### SUPPORT VEHICLES

1. No unauthorized motorized vehicles will be allowed in the pit or staging area. Snowmobiles must return under their own power. Only disabled snowmobiles may be towed from the track.

# DRIVER PROTECTIVE EQUIPMENT

It is the responsibility of the racer to select protective equipment that will conform to ISR guidelines and provide adequate protection. Even though race rules committees and ISR develop guidelines, ISR does not endorse or guarantee specific products or manufacturers of protective equipment. Racers must rely on their own judgment in the selection of helmets and other apparel for protection and durability.

- 1. Regardless of driver apparel passing prior inspections, compliance with the rules must be made at post-race inspections.
- 2. No cameras or digital acquisition devises can be attached to any driver's helmet. This will be in effect anytime a race vehicle is on the track, whether it be a test, practice session, or in competition.
- 3. Full coverage helmets are mandatory. Helmets will be full protective coverage and carry the **2020** Snell Foundation Approval Code. Helmets carrying European Standard ECE 22.05 are also approved. This is also mandatory in the tune-up area. The helmet must be securely fastened at all times. Helmet must display original ECE, or Snell decal as provided by the manufacturer. Decals that are covered or eliminated will be cause for rejection of the helmet. Enclosed cockpit sled drivers must use a current automotive certified helmet meeting Snell SA specification.

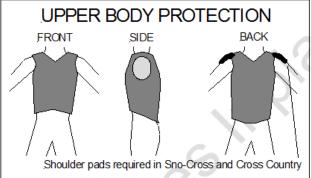
#### NOTICE: For the 2024 season the helmet must have Snell code 2020 or equivalent ECE 22.05 code.

- 4. Gloves and clothing, along with at least above ankle leather boots are mandatory (above ankle boot must have a minimum of 6 inches of leather above the ankle).
- 5. Eye protection mandatory; facemasks 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 when racing.
- 6. Hearing protection is mandatory in all non-stock classes in all types of competition. Recommended for all stock class competition.
- 7. The use of upper body protection equipment is mandatory, except for enclosed cockpits. The upper body protection must cover all body areas shown in illustration. It will protect the driver in mid-body and back areas and be capable of resisting penetration and dissipating force of impacts while absorbing the shock of most blows. Typical motocross vests do not meet this rule.
- 8. 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.

- Upper Arm Pads and Elbow pads are highly recommended in all forms of racing.
- 10. Neck bracing is driver preference and is not required.
- 11. Drivers, crew members, team owners, staff, and support people may not be physically on the race surface at any time once an event has started. This includes walking the track to inspect for changing track conditions and other concerns. Anyone doing so will be penalized at the race director's discretion. Penalties may range from a verbal warning to ejection from the facility.
- 12. Leather or Ballistic Nylon suits recommended to be worn in Outlaw and Pro Extreme 55 class sleds that have the potential to exceed 125 per hour, and mandatory in Outlaw and Pro Extreme 55 class that achieves 135 miles per hour.

#### **Upper Body Protection That Meets ISR Guidelines Click Here**



**EVS Click Here Tek Vest Click Here** Saf-Jak Click Here **Leatt Adult Click Here Leatt Youth Click Here HMK Protective Vest Click Here** 

11. Leather suits: See specific requirements in various disciplines.

# GRASS ICE SNOW BRAG RACING

# GENERAL COMPI

#### SIGNAL LIGHT RULES

- 1. Sanctioning bodies, which employ signal lights, must inform competitors of their signal light protocol before the start of the event. When light signals are used instead of flags, all competitors must be made aware of signal light procedures prior to the race.
- 1. The following signal lights apply to DRAG racing:
  - a. PRE-STAGE/STAGE-Flashing or non-flashing means ge snowmobiles, be ready to race.
  - b. YELLOW LIGHT-Staged and ready to race.
  - c. GREEN LIGHT- Start of race.
  - d. RED LIGHT-Driver has left the line before green light.
- It is the driver's responsibility to see that his snowmobile triggers the scoring system properly.
   Starting and finishing lights must be of a uniform height.

#### RACE STARTING PROCEDURES

- 1. All drivers must be assembled on the starting line, ready to race within two (2) minutes of notification of their race (except special events).
- 2. Snowmobiles may be pushed to the starting line.
- 3. All participants (including crewinembers entering the start line area, are required to wear eye protection or safety glasses.
- 4. Snowmobiles must be placed on an approved stand for warm-up and/ or for clearing the track. See CLEANOUT/SAFETY STANDS in this chapter.
- All snowmobiles on the starting line must have the track and both skis flat on the course surface before starter begins the race.
- The driver's feet must be on the running boards or stirrups. The Race Director may disqualify a driver if the driver's method of start interferes with other c

#### **START**

Events that take place under natural lighting will be terminated thirty (30) minutes after published sunset. This rule must be strictly enforced. Furthermore, this rule assumes that there are no other visibility issues other than sunset. If visibility is reduced beyond the prescribed limit by other factors, racing must be halted before the prescribed time.

- 2. Any conditions that reduce visibility (prior to 30 minutes after sunset) must be considered before continuing to race. Other conditions include (but not limited to) snow dust, ice dust, fog, haze, clouds, mist, falling snow, falling rain, and smoke.
- 3. It is the Race Director's responsibility to discontinue racing if the visibility falls below the prescribed level at any time during the day.
- 4. An injured or otherwise incapacitated driver or damaged snowmobile shall be prohibited from racing with exception that if in the Race Director's judgement, the driver or snowmobile is determined not to be a danger to driver's self or any other competitor. The Race Director's decision is final.

#### **LEAVING THE COURSE**

1. Drivers should stay on the confines of the marked course. At the discretion of the Race Director, a driver may be disqualified for leaving the confines of the course.

#### **CONTROL OF SNOWMOBILE DURING RACE**

1. It is expressly forbidden to drive or push a snowmobile in a direction other than that of normal race traffic.

#### **RACE FINISH**

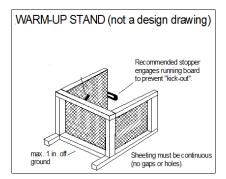
1. The finish line will be clearly marked.

#### **DRIVERS BRIEFING**

1. The mandatory meeting (or meetings) will be held at an announced time and place. It will be conducted by the Race Director and Race Promoter. An interpreter should be used when needed. Pins, stamps, tags, roll call, random call, etc. may be used to check the identity of drivers at the briefing.

#### **CLEAN OUT / SAFETY STANDS**

1. Snowmobile safety stands that catch and retain track, track lugs, traction components and other items that are thrown by a track are mandatory (see illustration).



- 2. The stand must be no more than six (6) inches from the rear of the tunnel opening and no more than twelve (12) inches from the track. The safety stand will be constructed of metal equivalent to 6061/T6 aluminum, 1/8 inch thick. Side panels are mandatory, and they must extend at least to the center of the rear axle. Vertical coverage must be no more than one (1) inch off the ground/ice and as high as the snowmabile support device. Coverage must be continuous (no lightening holes). A plywood liner is recommended to help absorb impact. Safety stand must maintain enough height to prevent track encountering ground/ice surface. The stand must be used whenever the rear of a snowmobile is reised to clean out the engine or track.
- 3. No full throttle operation while snowmobile is on warm up stand.

#### MISUSE OF PIT PASSES

1. Improper usage of pit or paddock passes will be grounds for discipline.

#### FIRE EXTINGUISHER

1. Fire extinguishers must be available in pit\_paddock/staging and starting line areas. Fire extinguisher minimum size will be five (5) pounds with ABC fire extinguishing capabilities. Fire extinguishers will be in place before the start of the race. All trailers, haulers, enclosed truck bodies, etc. used for transport of racing sleds and their support equipment must have 2 (two)-5-pound ABC extinguishers on board, accessible and serviceable always. See Outlaw and Pro Extreme 55 for specific details for those classes.

#### **FUEL REGULATIONS**

#### NOTICE: It is advisable for all competitors to have their fuel tested at the event, before competing.

- 1. A contestant appealing a fuel disqualification must bear the expense of the fuel analysis and handling.
- 2. Allowed gasoline and lubricants:
  - a. Only a commercially available pump gasoline that complies with these rules is allowed. (The term "pump gasoline" includes fuels dispensed from service station pumps and racing fuels that are commercially available in fuel cans and drums.) The gasoline may be mixed with petroleum, vegetable, or synthetic based lubricants. The use of oils, fuels (including gasohol), and additives that provide power-boosting characteristics are strictly forbidden.
  - D Only motor fuel compounded of standard pump gasoline and an acceptable lubricant are allowed. Additives that produce power more than that produced by standard pump gasoline and petroleum base oil shall not be permitted. The list of unacceptable additives includes, but is not limited to, alcohol, nitrates, and other oxygen bearing compounds.
  - c. No competitor or driver's pit personnel shall possess power boosting additives or agents upon the race premises of the sanctioned event. Violations of this rule shall subject the violator to severe disciplinary procedure.
  - d. Aerosol cans of ether are allowed at sanctioned races for starting purposes. No driver will be allowed to carry such cans on their person or their snowmobiles during the race.
  - e. Driver statements as to their fuel components will be binding and may be verified by various fuel tests. Drivers must allow officials to test their fuel at any time.

#### **FUEL TESTS**

WARNING: Gasoline, lubricants, additives, and fuel test reagents are all potentially hazardous materials. Anyone handling them should be aware of the hazards and act accordingly. Race Rules Committees and ISR establish these guidelines and recommended test procedures, but do not assume liability for injury or death caused by the handling of these materials.

Any or all these tests may be employed. Test results may be confirmed from time to time using an infrared spectrometer.

**Grass/Snow/Ice**: In these specific classes:

Pro Extreme 55, commercially available pump gas allowed including VP Import and Q-16.

#### **Outlaw class**

VP Import, Q 16, and Methanol/Nitro and gasoline may be used as an alternate fuel. All standard fuel tests still apply as they pertain to the type of fuel used.

In the case of "Import" ISR has on file the spectrograph footprint of this category of fuel and competitors using "Import" may be required to supply samples for comparison purposes. VP Import fuel needs to be used as produced by VP fuels (no cutting or blending.)

IF ANY OF THESE FIELD TEST ARE FAILED BY A PARTICIPANT

HE WILL BE DQ'ED FROM ALL CLASSES THAT HE PARTICAPATED IN FOR THAT DAY.

- 1. ELECTRICAL CONDUCTIVITY (DI ELECTRIC CONTENT)
- 2. CERIC NITRATE REAGENT TESTING
- 3. REAGENT D TEST FOR DIOXANE
- 4. WATER SOLUBILITY TESTING
- 5. ANY OTHER TEST APPROVED BY RACE RULES COMMITTEES

# ENFORCEMENT, DISCIPLINE AND VIOLATIONS

All participants are subject to disciplinary action for violations of these rules in accordance with the sanctioning organization's bylaws. Penalties may include suspensions, fines, loss of points, disqualifications, or any combination thereof. The nature of the penalty is determined by the gravity of the offense and its effect on the safety and good reputation of snowmobile acing. The violations hereinafter set forth are subject to the penalties noted.

#### **EJECTION FROM RACE SITE**

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

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

- 1. Participants are solely responsible for the condition of their snowmobiles and their competence to operate them.
- 2. No driver may, at any time, ride/drive in such a marine as to endanger life or limb of other riders, officials, or the public.
- 3. Vulgarity, derogatory or offensive language will result in disciplinary action, ejection from race site and be subject to fines and penalties.
- 4. Any participant that threatens bodily harm or assaults any official, driver, crew, etc. will be subject to disciplinary action, ejection from race site and be subject to fines and penalties.
- 5. Clothing displaying vulgar language is not allowed.

#### DRIVER LIABILITY RELEASECOVENANT NOT TO SUE

- The driver/pit crew, in filing an application to enter the event, elects to use the course of the event at driver's /pit crews own risk, and thereby releases the sanctioning organization together with their heirs, assigns, officers, representatives, agents, tech personal, 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 and/or reputation from tech decisions that 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 and or piece of equipment that participant entered into competition.
- 2. Drivers/pit crew and other participants further acknowledge and fully understand that there may also be other risks that are not known or foreseeable at this time, and the above and released persons cannot control these risks, nor have the released persons judged the participants' skill level or ability prior to allowing the participants to participate and consequently is not in a position to guarantee the participants' personal health or safety during the programs, events, or activities. DRIVER/PIT CREW KNOWINGLY AND VOLUNTARILY ASSUMES ALL SUCH RISKS, BOTH KNOWN AND UNKNOWN, ANTICIPATED AND UNANTICIPATED, EVEN IF ARISING FROM THE NEGLIGENCE OF THE RELEASED PERSONS OR OTHERS, AND THE PARTICIPANTS' PARTICIPATION.
- 3. In consideration of permission and as a requirement of participation in sanctioned events, drivers, pit crew and other participates hereby covenant and agree not to sue the sanctioning organization, or its heirs, assigns, officers, representatives, agents, employees, and members, sponsoring organization and owners of properties on which sanctioned events are to be held, and further agree to fully release, indemnify and hold harmless those persons from any and all causes of action, demands, claims, and loss of injury to person or property or damages, of any nature whatsoever, whether the participation is supervised, unsupervised, however the injury is caused, including, but not limited to the negligence of any released persons.

#### **DRIVER RESPONSIBILITY**

- 1. The driver has the responsibility for the actions of his crew. It is the driver's responsibility to see that all crewmembers are aware and abide by all rules and guidelines.
- 2. The condition of a snowmobile is the responsibility of the driver. A driver may be disciplined if driver's snowmobile is modified to defraud the officials or other competitors.

#### FRAUD. BRIBERY & ILLEGAL ASSISTANCE

- 1. In addition to non-compliance with any of the above regulations or rules, the following offenses shall be considered a breach of regulations or rules.
  - a. Bribing or attempting to bribe anyone connected with the race or accepting or offering to accept a bribe.
  - b. Competitor accepting any kind of assistance that aids in snowmobile operation during the race.
  - c. Any fraudulent proceedings or act of prejudicing the interest of the race generally.

#### **INTOXICATING BEVERAGES & DRUGS**

- 1. Drinking of intoxicating beverages is strictly forbidden by any participant. Anyone showing evidence of having used an intoxicating beverage must leave the premises (specifically pit, paddock (staging area), warm up area, tear down and racetrack) immediately and be subject to disciplinary action by the disciplinary committee. This shall be in effect through the final inspection of snowmobiles.
- 2. Possession or use of illegal drugs or drug substances, as defined below, is prohibited in any form, by any participant, on the race facility, or in any area considered to be used in the operation of the race facility, such as parking lots or leased properties.
- 3. Illegal drugs are these substances defined and prohibited by state/provincial and/or federal law.
- 4. Any person found to be in possession or under the influence of an illegal drug or drug substance on race facility property, as defined above, or any person who is arrested by duly constituted authorities and charged with possession and/or use of illegal drugs or drug substance or any person who is formally charged by a court of law with illegal drug violations, shall be subject to suspension from competition and eviction from the race facility, and denial of further entry to the race facility for a period determined by the disciplinary committee.
- 5. Any participant who is formally charged by a court of law with an illegal drug violation, upon notification to the ISR Advisory Board, shall be suspended from all forms of participation at any ISR event until such time as the charges are fully adjudicated through the legal process. Any conviction of a formal drug charge by such will be prohibited from taking part in any ISR or affiliated event for a minimum period of three (3) years from date of conviction.
- 6. Any participant suspended for violation of these rules may be granted an appeal hearing by a board of officials designated by the ISR Advisory Board, provided the suspended participant requests such hearing in writing, within fourteen (14) calendar days of the date of suspension. It is the responsibility of the suspended party to make such a request if a hearing is desired.
- 7. The cost of convening the board of officials will be borne by the participant prior to the convening of the board.
  8. A participant suspended for violation of these rules, EXCEPT IN THE CASE OF PERSONS CHARGED WITH SELLING DRUGS, may, as the result of a decision reached through the hearing process detailed above, be reinstated, if it is mutually agreed that the participant (at his own expense) will produce documentation from a physician (censed within the state or province, certifying that he or she is drug independent, as a result of random and periodical examinations and urinalysis testing made at the request of the ISR Advisory Board.

  9. If a participant is using prescription drugs on advice of a physician, such use must be reported to the Race Director prior to the participant's
- entry into any ISR activities. Failure to notify will subject the participant to penalties as prescribed above.
- 10. A participant is any person taking part in any event sanctioned by or affiliated with International Snowmobile Racing, Inc., in any form, including but not restricted to drivers, showmovile owners, mechanics, crew members, sponsors, track officials, pit area personnel, manufacturers and press representatives. All such persons shall be considered public figures that have by their own choice become involved in the snowmobile racing events, with the full understanding that he or she must abide by the rules and regulations established and published by ISR. All participants are responsible for their personal conduct.

# RACE DIRECTOR AUTHORITY

- pirector and Technical Director will be certified by the sanctioning organization.
- ace Director shall be responsible for the conduct of the race. He shall have the right to make the final determination concerning all of the race and the race facility, including design (these rules and regulations notwithstanding). The Race Director is defined as the overseer/controller of the actual track operations during an event. He has prevue over all aspects of the race and interpreting rules that are applied. He may be a track owner/ or contract manager of a facility, however, "Race Directors" that are of administrative or business side of the event, although they may be referred to as race directors are not the on-track event director. In any case ISR certification is required.
- He 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.
- 4. 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.
- 5. Race Director may not have vested interest in the outcome of an event over which he/she officiates. He/she may not officiate over a class in which he/she has a vested interest.
- 6. Race Directors may compete in events other than those in which they officiate.

- 7. The Race Director may cancel any race or the complete 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.
- 8. A Race Director may judge the mechanical integrity of all timing equipment.
- 9. Only Drivers (no other participants) will have discussions with the Race Director about protests, and driving complaints, etc., and may approach the Director before the day's events, after an event, or at the direction of the Race Director.
- 10. The Race Director has the authority to judge the racing abilities of competitors and take appropriate action to ensure the safety of the event
- 11. The Race/Tech director shall have the authority to determine structural integrity.
- 12. The Technical Director shall carry and be responsible for the official specifications and certain instruments for measurements concerning verification and control of contestants' snowmobiles. The Technical Director may not officiate over a class in which he has a vested interest.
- 13. Technical equipment and specifications will not be used for any purpose other than the conduct of the sanctioned event.
- 14. Decisions of the Race/Tech Director may be reviewed by the board of the sanctioning body.
- 15. Decisions made at an event shall not be overturned without a formal appeal. Notice of the appeal process shall be given and a suitable period for all parties to prepare must be allowed.

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# GRASS – ICE - SNOW DRAG RACING

# DRAG RACING RULES

#### OFFICIAL SANCTIONS AND CLASSES

#### CORE CLASSES / SANCTIONS

The intent of these classes is to establish races in which all can compete at their level of personal and equipment ability. The class structure is organized in such a way as to enable as many snowmobiles as possible a place to successfully compete.

Based upon safety and competition, stock snowmobiles manufactured prior to (10) years of the current model year will not compete in Stock classes but may compete in other classes.

If class rules are not followed, the class name shall not be used, and the class shall be run as a specialty class with ISR's prior approval. Competitors must be 18 years of age to compete in these classes.

#### SPECIALITY CLASSES / SANCTIONS

- 1. All special sanctions and specialty classes not described in the Official ISR Racing Rule list and web site must be approved in writing by ISR and the rules committee before competition.
- 2. Specialty classes can be any snowmobile drag racing class or event that does not fall under any of the specific circuits or classes, but meets established safety standards, applicable laws and/or approved insurance coverage.

#### **Specialty Drag Race Classes**

Factory Stock 850
Factory Mod I
Factory Mod II
Vintage Retro Mod
Outlaw
Pro Extreme 55

#### **FOUR STROKE ENGINES**

1. To be eligible for competition, a four-stroke powered snowmobile must be classified through the ISR four- stroke classification procedure for competition in two stroke classes.

#### **RECOMMENDED ENTRY FEE**

1. The entry fees for all other classes will be regulated by event promoter, World Series Committee and/or Sanctioning Body.

#### PAYBACK/REGISTRATION FEES

The promoter payback at drag races will equal 100% of the entry fees collected or the guaranteed purse, whichever is greater. Said entry fees to be based on the number of snowmobiles registered in the class. If entry fees are \$15.00 or less, the promoter shall have the option of providing

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trophies, money, or both. Promoter shall post the specific event payback system to be used at the registration area of the event and shall publicize the events payback/awards system in advance of the event.

1. Purse payback breakdown per class shall be as follows: (suggest removing for drag, payoff varies per event, as long as complies with "equal to 100%" language above

a. With 21 or more entries in class:

First place	45%
Second place	25%
Third place	15%
Fourth place	5%
Fifth place	Return entry fee
Sixth place	Return entry fee

b. With 20 or fewer entries in class:

First place	45%
Second place	25%
Third place	18%
Fourth place	12%

c. With 3 or 4 entries in class:

First place	60%
Second place	40%

d. With 1 or 2 entries in class:

First place	100%

e. With 5 or more entries in class and only 3 finish:

First place	50%
Second place	30%
Third place	20%

- 2. Late registration fees will be included in purse payback.
- 3. If an entrant fails to pay entry fees in full or stops payment of entry fees, the entry is not valid, and the driver will not receive payback and will not be permitted to lodge a protest or appeal.
- 4. Drivers may be restricted to the number of classes they may enter. Four classes per driver is recommended, but regional discretion applies.

#### SPECIALTY CLASSES/SANCTIONS

- 1. Specialty classes/sanctions are exempt from the payback guidelines. Race affiliates or promoters may distribute extra/add-in money as they see fit.
- 2. If payback differs from that published in payback/registration the affiliate/promoter must announce all details before registration.
- 3. Payback for all other events will be regulated by the regional competition or sanction committee.

#### **SCORING**

- 1. All competitors that show to the line for a final event will be scored.
- 2. In drag racing events, in the final, a red light will constitute a last place finish for prizes and awards. In the event of multiple red lights, scoring will be based on reaction time.

# DRAG RACING COURSES AND FORMATS

The following rules govern the conduct of ISR Drag race sanctioned events. The format may vary according to the region, course conditions and promoter's preference. All variations need to be advertised for the information and convenience of competitors. Alternate formats will be allowed at the discretion of the ISR affiliate with the pre-approval of ISR.

#### **COURSE DESCRIPTION**

- Sanctioned Drag Racing events shall be held on a course of Grass/Ice/Snow completely free of obstructions which provides adequate and safe
  run-off area at the end of the racing course so that competitors may exit and safely slow down upon completion of the race. (See suggested
  course layout diagram in Appendix.)
- 2. Blend the end of the course (run-off area) to existing terrain conditions. No banks, fences, or walls.
- 3. Promoter shall provide adequate crowd control to prevent spectators or any other persons from moving onto the racing course or run-off areas.
- 4. The finish line will be isolated from all unauthorized personnel by a fence one hundred (100) feet in circumference away from the track edge.
- 5. A  $\frac{1}{2}$ " thick 4' x 4' sheet of plywood will be required, behind each lane, at the starting line.

#### **COURSE LENGTH**

- 1. Other than maximum course length and minimum lane width, variations in course dimensions may be approved by each region but will not be accepted in determining ISR timing records.
- 2. Maximum course length for ice is 660 feet.
- 3. Maximum course length for Grass is 500 feet.
- 4. Maximum course length for Snow is 500 feet.

#### **COURSE WIDTH**

1. Minimum lane width is twenty-five (25) feet.

#### ORDER OF CLASSES

 Order of classes to be run will be determined by the Promoter and properly publicized or posted for the convenience and information of competitors.

# **SPECIAL EVENTS**

#### **TIMED ELIMINATIONS**

- 1. Entrants in all classes will race for elapsed time on the course. Fast times will be basis for qualification in finals.
- 2. No snowmobile may exceed the pre-established elapsed time for its assigned class.
- 3. Any snowmobile that exceeds the pre-established elapsed time will automatically be advanced into the next higher class for duration of the racing season.
- 4. Winners will be determined by head-to-head competition, but within the maximum elapsed time limits established. (Note: elapsed times will vary according to the type of racing surface).

#### MATCH ELIMINATIONS

- 1. Entrants in all classes will race two at a time. Winners advance until two competitors remain to race in the final heat.
- 2. Promoter may, at his discretion, race double elimination heats which require every driver to lose two (2) races before the driver is eliminated from competition.
- 3. Match eliminations may be raced at Grass/Ice/Snow Diagracing events.

#### **BRACKET RACING**

- 1. Upon entry, each competitor must specify the precise elapsed time he/she will not exceed during racing.
- 2. Entrants in all classes will race against the clock for elapsed time. A minimum of two (2) and a maximum of four (4) snowmobiles may race at one time, at the discretion of the Promoter
- 3. Heat winners will be determined by the driver who comes closest to his/her predicted elapsed time without exceeding the predicted elapsed time. Exceeding the predicted time means disqualification.
- 4. Heat races continue until the final heat, when the winner of the class will be decided by the system noted above.
- 5. Points will be awarded to the four final drivers, in order of closest to elapsed times.

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# **GENERAL COMPETITION AND SAFETY RULES**

All snowmobiles must comply with the snowmobile general rules and regulations section of the ISR rulebook.

#### PADDOCK/STAGING & STARTING LINE

- 1. Grooming of the start area and use of specialized tools will be at the discretion of the sanctioning body.
- 2. Anybody in this area will be required to wear safety glasses. It is highly recommended that full coverage helmets and upper body protection be used. It is mandatory that a separate clean out board be placed near the starting line.
- 3. A protective stand will be in place behind the track of the snowmobile when it is leaving the starting line.
- 4. The driver must start the race with feet on running boards, stirrups or foot pegs and the feet must remain there for the duration of the run. If the driver leaves the normal driving position, he/she must resume proper position before continuing. The Race Director has the authority to disqualify a driver who cannot maintain a proper driver position.
- 5. No assistance shall be given to a driver on the starting line except when mechanical difficulty develops. One (1) mechanic may help the driver with permission from the Race Director. Extra help may be requested to remove the snowmobile from the course (special events exempt). Starter looks for raised hands, signifying engines not running or other mechanical trouble. If none, the starter will start the race within five (5) seconds (special events exempt). A start will not be delayed due to mechanical difficulties for more than two (2) minutes from original notification. If difficulties develop after the green flag drops, the driver may continue to race or withdraw; however, if a driver withdraws to the pit, the driver is not eligible to restart.
- 6. If a racing snowmobile is moving under its own power, the operator must be wearing a helmet and the tether must be securely attached to the operator.
- 7. Moving a running snowmobile on a stand is prohibited.
- 8. In qualifying rounds, drivers that "jump start" will be disqualified. If Starter is unable to determine the jump starters, a restart will be held at the Starter's discretion. In Final races, drivers that "jump start" ("red light") will be scored after those who do not jump-start.
- 9. The number of crew members accompanying the drivers to the starting line will be regulated at the discretion of the sanctioning body.
- 10. A driver will be disqualified for changing lanes unless the driver is attempting to avoid an accident. The snowmobile may not leave the confines of the lane, run-off area or the return lane.
- 11. Snowmobile safety stands that catch and retain track, traction component and other items that are thrown by a track are mandatory (see illustration in GENERAL RULES AND REGULATIONS). The stand must be used whenever the rear of a snowmobile is raised to clean out the engine or track.
- 12. Clean out will only be allowed at specified backboards. The snowmobile must be placed on a safety stand and the safety stand must be against the clean-out backboard. Backboard minimum requirements are eight (8) feet tall, four (4) feet horizontal space for each snowmobile.

  Backboards must be sheeted with %" inch plywood (no chipboard). Additional clean out boards may be placed in the paddock area.
- 13. Cool down allowed in the hot pits for all classes.
- 14. Participant using external cooling system must use a catch pan to stop any coolant from leaking onto grass/ice/snow when in use or being disconnected.
- 15. Neck bracing highly recommended in all classes.
- 16. The tether cord will be securely fastened to the driver. D rings/tabs on gloves and jackets are not designed for the abuse encountered during competition and accidents. It is required to have your tether cord mounting location on your jacket or upper body protection in a reinforced area. A race or tech director may disapprove of the attachment method at any time. Drivers will not be allowed to compete until the attachment situation is rectified.
- 17. Drivers, crew members, team owners, staff, and support people may not be physically on the race surface at any time once an event has started. This includes walking the track to inspect for changing track conditions and other concerns. Anyone doing so will be penalized at the race director's discretion. Penalties may range from a verbal warning to ejection from the facility.

#### **VERIFICATION AND CONTROL**

1. Mandatory teardown and inspection of first place is required. Any other snowmobile (at the discretion of the Race/Tech Director) may be torn down and inspected at any Drag event.

# GENERAL SNOWMOBILE REQUIREMENTS

These GENERAL RULES apply to all snowmobiles in competition unless so noted. All participants, racers and crewmembers are required to be fully aware of these regulations and must abide by them.

Participants are solely responsible for the condition of their snowmobiles and their competence to operate them.

Where the rules permit or require components or equipment to be installed, replaced, altered, modified, or fabricated, it is the sole responsibility of the driver to select components, materials and/or fabricate the same so that the components will perform safely in competition.

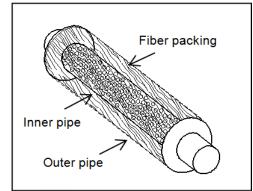
#### **CLASS ELIGIBILITY & SNOWMOBILE ID**

1. Unless otherwise specified in specific ISR rules, a snowmobile used in more than one class or division must comply with all rules and safety guidelines for each class or division in which it competes.

- 2. The maximum class displacement in cc's must be permanently displayed (minimum two (2) inches height) at the rear of the tunnel on both sides.
- 3. The driver's number must be displayed on both sides of the chassis along with class designation. These may be permanent or displayed on an approved decal.
- 4. In stock and stock-based classes, the chassis and engine must have been originally OEM assembled and serial numbered indicating that the snowmobile is a stock qualified unit from the production run of a stock qualified model.
- 5. All snowmobiles in Modified classes must have serial numbers permanently affixed to the engine and the frame. Duplication of serial numbers is not allowed.
- 6. If the tunnel, engine, or other serial numbered part is replaced, the serial number must be removed from the replaced part and affixed to the new part.

#### **ENGINE**

- 1. ISR and/or the Race Rules Committees will approve the validity of all engine intake systems.
- 2. In stock and stock-based classes, the engine must have originated from a stock qualified, OEM produced snowmobile.
- 3. In stock and stock-based classes, coolant thermostats, regardless of location in the cooling system, may be ran as produced, changed to alternate temperature settings, or completely removed. If removed a control plate/washer to control volume of flow may be installed in its place. This plate shall serve no other function than restricting the flow of coolant.
- 4. In Stock classes, the OEM for the model exhaust system must remain as produced by the manufacturer and must be fully functional. In Mod classes it will be specifically noted as to which exhaust components may be changed or modified.
- 5. In classes with individual chamber exhaust for each cylinder, the following minimum standards for straight thru silencers are required:



a.Inner pipe must have at least 15 holes per square inch. Minimum hole size 1/16 in (Minimum 3/8 in. sound absorbing material around the entire circumference of inner pipe).

- b. Inner pipe (perforated core) must contact sound absorbing material (fiber or steel wool packing).
- c. Outer pipe must be at least 1/2 in. larger than inner pipe.
- d. Minimum silencer length 3 in.
- 6. In all two stroke engine classes the above functionally silenced rule will be in effect. In Stock classes factory expansion chamber and after muffler will be required. In Modified two stroke classes the above specifications will be in effect.
- 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.
- 3. An adequate return spring on the throttle is required.

The throttle must be a direct mechanical thumb mechanism, which must be located on the rear side (toward the rear of the snowmobile) of the right hand handlebar. Throttle must be thumb operated. Twist grip throttles not allowed.

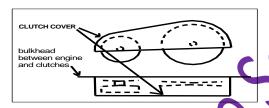
- 9. All Stock classes Choke control devices may be disconnected; however, they may not be removed from their mounting location.
- 10. No pressure charging allowed unless specified.
- 11. When superchargers are allowed, a supercharger lest aint system, including a flexible blanket shield, is required to prevent super chargers from being blown free of the engine.

#### **DRIVE**

- 1. Brakes shall always be operative. Brake lever must remain on the left, front side of handlebar.
- 2. The master cylinder, caliper and disk assembly must be commercially available.
- 3. Additional brake assemblies may be added. If the secondary brake is on the track drive shaft, the disk may be smaller than 7". Brake disk in any other location must be a minimum of seven (7) inches in diameter. Track drive shaft may be lengthened to accommodate additional brakes.
- 4. In Modified classes, any time the brake assembly has been modified or relocated, the brake disk must be covered with a shield capable of retaining an accidental explosion.
- 5. The disk pad contact surface area may not be reduced more than 15% of the original pad contact surface area.
- 6. Chains, pulleys, and exposed moving parts will be isolated from the driver and other competitors by shields capable of retaining all accidental explosions and component impacts. Integrity of protective shields shall be at the Race and/or Tech Director's discretion. No holes may be drilled in protective shields.
  - Unless otherwise specified, stock class belt guards are acceptable in Stock classes only.
- 8. Secondary clutch windage plates may be removed in all classes.
- 9. Custom clutch guards, clutch guards on purpose-built chassis, and specialty chassis may use Carbon fiber, Kevlar, and other materials as einforcement of standard clutch guard material and design. Newly designed clutch guards must exceed the specifications and limits established in standard clutch guard requirements, See specific disciplines for details. Each specific clutch guard must be submitted to ISR with digital pictures (both installed and uninstalled, at least four views) and a detailed explanation of design, design limitations, and method and type of fasteners used to affix the guard to the chassis. ISR may request an appointment to inspect on site.
- 10. Improved Stock and Pro Stock and Pro Mod The clutch cover must be provided with a secure mounting plate. The mounting plate must cover the area below the clutches (from front of cover to rear of cover and width of cover) and be made of the same material as the cover. The cover must be securely fastened to the mounting plate and the mounting plate must be securely fastened to the belly pan.

- 11. Heavy Mod and Open Mod, Outlaw and Pro Extreme 55. Clutch cover must have full facial coverage and 360- degree elliptical coverage in the direction of belt travel (see illustration). Belt guard must be .090-inch 6061T6 aluminum or equivalent steel material and be covered with six (6) inch belting. Other belt guard materials not allowed. If the clutch cover is fastened to the existing belly pan, the area below the clutches (from front of cover to rear of cover and width of cover) must be covered with .090-inch 6061T6 aluminum or equivalent. If cover is .125 inch, 6061T6 aluminum or equivalent steel material, belting is recommended, but not mandatory. Clutch cover and related belting must be securely fastened.
- 12. Backside of clutches must be covered by a portion of the clutch cover or by a bulkhead of comparable material.
- 13. Aluminum brake disks not allowed.





#### SKI SUSPENSION AND STEERING

# CURRENT TECHNOLOGY FOX/ OR OTHER BRAND "AIR SHOCKS" ARE CONSIDERED HYDRAULIC DAMPED SHOCKS FOR THIS APPLICATION.

- 1. All handlebar ends must be plugged.
- 2. Limiter straps may be used on all suspensions in all classes.
- 3. All classes require a minimum amount of suspension travel. See section for specific required minimums.
- 4. Suspension travel to be measured vertically at the bumper. It is the driver's and/or crew's responsibility to demonstrate suspension travel.
- 5. (Pro Stock and Modified classes/ Grass-Ice-Snow)) Spindle minimum wall thickness is 0.120 inch; minimum outside diameter is 0.75 inch. Inspection hole required if wall thickness is not visible.
- Sled must have a minimum ride height of three (3) inches measured at the lowest point of the bulkhead/skid plate. Measurement points to be centered directly in front of the track drive area, (using the spindle centers to determine center point of bulkhead). Functional suspension required.

#### SKIS & SKI RUNNERS

- 1. Any OEM type slide rail hyfax may be used as a replacement.
- 2. Slide rail hyfax can be drilled in all classes.
- 3. Where allowed in these rules and by local environmental laws, slide rail lubrication systems may be used. No toxic solutions may be used.
- 4. In Stock and Improved Stock, track suspension limiters must be OEM type for the model or straps or chains. OEM type screw adjusters for straps allowed.

#### TRACK AND TRACTION

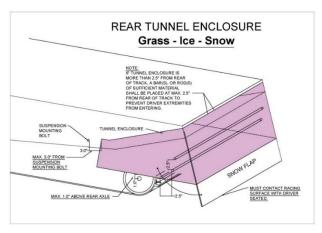
# CURRENT TECHNOLOGY FOX OR OTHER BRAND "AIR SHOCKS" ARE CONSIDERED HYDRAULIC DAMPED SHOCKS FOR THIS APPLICATION

- 1. Track dimension rules if different than general rules will be defined in specific class rules. A 1/8-inch maximum variance in the minimum track width requirement is allowed.
- 2. Unless otherwise indicated, the track must be centered on the centerline of the tunnel in all modified classes. Modified classes are allowed track offset for installation of brake assembly on front driveshaft. In no case may this offset be more than 2 (two) inches, determined from edge of track to inner edge (side) of tunnel. In Stock and Stock-based classes, the track location must be as produced unless otherwise specified.
- 3. Sled must have a minimum ride height of three (3) inches measured at the lowest point of the bulkhead/skid plate. Measurement points to be centered directly in front of the track drive area, (using the spindle centers to determine center point of bulkhead). Functional Suspension required
- 4. In all forms and classes of drag /speed run racing, track clips and guide clips may be replaced when worn guide clips may be removed and replaced with track clips track clips may be removed and replaced with guide clips the track must retain the original number of clips with which it was produced.
- 5. Track studs may be no more than 3/4 inches above the highest point of the track or the traction lug. Except for under slide rails, all backer plates will be no greater than two and one quarter (2 1/4) inches in width and length. Drilling or cutting of holes through the track is not allowed except to mount traction devices. Maximum hole size for mounting traction devices is 5/16 of an inch.
- 6. Identification numbers affixed or molded into tracks by the molder of the track must remain completely visible and unmodified. No traction devise 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 molder.
- 7. Tracks may not be reversed.
- 8. Studs must be placed between two track lugs and no more than 1.5 inches from either lug. Penetration will be measured from a straight line

- across the high point of the two lugs.
- 9. In Stock class, track width is as produced for the model (unless a designated optional track of different width is used). All tracks must be commercially available from OEM or molder of track. Aftermarket service modifications/cutting must be identified/branded by the service provider.
- 10. It is recommended that the track be no more than 3 years old.

#### FRAME AND BODY

- 1. A rear snow flap of sufficient material must be installed in a permanent manner and shall be held down (restrained from rearward movement) to restrain traction components, snow, mud, rocks, and other material thrown from the track at all speeds. Recommended materials are 3/16-inch fiber reinforced rubber belting or 3/16-inch semi-rigid plastic such as HD polyethylene or UHMW polyethylene.
- 2. The snow flap must overlap the widest part of the rear tunnel opening by at least one inch on each side.
- 3. The rearward movement of the snow flap must be restrained with steel cable (or similar material) to the frame of the snownobile. The use of springs and/or elastic material for holding down and restraining snow flaps is not acceptable.
- 4. The snow flap must be in contact with the course surface when the rider is on the snowmobile. Violation of this rule results in mandatory expulsion from the class.
- 5. Grass/Ice/Snow Classes Improved Stock, Pro Stock and Modified classes. "Wheelie bars" allowed. No length limitation. Length of wheelie bar not included in length of snowmobile. Snowmobile must conform to rules for clean-out stand.
- The maximum overall snowmobile width is 45 inches unless otherwise stated.
- 7. In Speed Runs and some Modified classes in drag racing, maximum snowmobile length is 120 inches.
- 8. Stock, Improved Stock and Pro Stock are not allowed to use foot pegs, running board foot stops may be used and may not be wider than the running board at the position they are installed, and they may not extend higher than the top of the tunnel at the point of installation.
- 9. Modified Classes. Stirrups/pegs must be alongside of the tunnel and may not extend above the tunnel or beyond the rear of the tunnel. All snowmobiles equipped with foot pegs must also have running boards of tunnel like material. Running boards must be four (4) inches wide and start one (1) inch behind the foot pegs and extend forward along the tunnel to the rear of the clutch cover on both sides.
- 10. Dulled foot 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 running board.
  - 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 the side of the rolled edge.
- 11. All modified snowmobiles regardless of class or discipline will be equipped with an upholstered, padded seat minimum thickness one (1) inch, minimum length fifteen (15) inches. OEM seats may be cut down to the design needs of the builder but must meet these minimum standards.
- 12. Unless otherwise stated, seats in Stock class must be OEM for the model. OEM seats have no requirements for fabric, padding, dimension, or coverage. If the seat meets manufacturers legal design criteria it is legal for any class, stock or modified.
- 13. Unless otherwise specified, tunnel protective strips may be added to underside of tunnel to protect the tunnel and cooling system from being damaged by traction products.
- 14. If a braking parachute is required, it must have been produced by a recognized manufacturer. Tech inspectors may observe the operation of the parachute and inspect for worn or frayed lines, ripped or dirty canopies and worn or ragged pilot chutes. Parachute cable housings must be mounted solidly to the frame or other suitable member; the use of quick pins for parachute mounting is prohibited. The parachute must be mounted in a manner that does not renden it inoperative if the snowmobile should lose a track or part of the snowmobile (specifically, mounted above the snow flap and at the center of the rear of the tunnel). Particular attention must be paid to the mounting of the parachute, so it retains the integrity to remain centered on the chassis when deployed. (This is extremely important to retain control of the sled when deployed.) The parachute controls will be mounted so they are accessible to the participant in a normal driving position, handlebar control deployment required. Parachutes are to be repacked before each event, and not remain in the pack for extended periods of time. Refer to manufacturer's instructions for parachute use and packing. Parachutes are mandatory for Outlaw and Pro Extreme 55 Grass/Ice/Snow
- 15. The rear of the tunnel must be enclosed with material comparable in strength to 0.063 aluminum sheet. The tunnel enclosure is required to reduce the possibility of driver's extremities entering the tunnel area. The shaded area (see illustration) must be enclosed. The enclosure shall cover the rear and both sides and extend forward a minimum of 14 inches. The bottom of the enclosure shall be no higher than one (1) inch above the center of the rear axle (with the driver in place). The rear of the enclosure shall be no further than 2.5 inches from the rear of the



#### **IGNITION & ELECTRICAL**

- 1. All snowmobiles must be equipped with a tether switch that must always be attached to the operator and be operable. The switch must "kill" the engine by disconnecting the ignition system when the operator and the snowmobile become separated. It is the responsibility of the driver to make certain that the tether is attached to everyone who starts the engine or operates the snowmobile.
- 2. Maximum tether cord length will be 4 feet except where noted otherwise. Verification of tether cord length will be determined at tether cord's fully extended length.
- 3. The tether cord will be securely fastened to the driver.
- 4. The tether switch will be securely mounted in a location on the snowmobile other than on the handlebars or steering column.
- 5. All snowmobiles must have a handlebar mounted button (on/off) kill switch on the right side within thumb reach (this is in addition to your tether

switch).

- 6. Wet cell batteries not allowed. Gel cell, or solid core (hand tool) batteries must be properly secured. Battery box if used, must be securely held in place.
- 7. On snowmobiles with enclosed cockpits, it is mandatory to have a functional kill switch that will terminate ignition if the snowmobile rolls over, this is in addition to the tether switch.
- 8. Unless otherwise specified, in stock class, electric start parts including motor, solenoid, battery, battery bracket, wiring, and ring gear may be removed. No machining, cutting, or grinding allowed for removal.

#### ADVANCING TO ANOTHER CLASS

- 1. Snowmobile moving to a class (other than the class for which it qualifies) must meet the criteria, safety, and weight rules for that class (unless stated otherwise).
- 2. Snowmobile may be advanced to a higher class and/or division without meeting safety requirements for the higher class so long as the snowmobile advances unchanged and remains compliant with all safety and performance rules in its original class.

#### **ADDING BALLAST**

- 1. Adding fuel to the fuel tank before a race is allowed as ballast. If fuel does not make up for the weight deficiency, additional ballast must be securely fastened to the snowmobile. Fastener must be at least (one) 5/16-inch, grade five bolt with a self-locking nut. No wing nuts allowed.
- 2. No weight belts or loose objects may be worn by driver

#### **FUEL**

**SUBJECT**: Fuel Clarification

Grass/Ice/Snow All classes (see exceptions below):

Only a commercially available pump gasoline that complies with these rules is allowed. (The term "pump gasoline" includes fuels dispensed from service station pumps and racing fuels that are commercially available in fuel cans and drums.) The gasoline may be mixed with petroleum, vegetable, or synthetic based jubricants. The use of oils, fuels (including gasohol), and additives that provide power-boosting characteristics are strictly forbidden. Fuel with ethanol may be used up to 10% (ten percent) in all Drag Race classes.

In these specific classes, Pro Extreme 55 and Outlaw: VP Import, Q 16, may be used as an alternate fuel. All standard fuel tests still apply as they pertain to the type of fuel used. All standard fuel tests still apply as they pertain to the type of fuel used. In the case of "Import" ISR has on file the spectrograph footprint of this category of fuel and competitors using "Import" may be required to supply samples for comparison purposes. VP Import fuel needs to be used as produced by VP fuels (no cutting or blending.)

In Outlaw VP Import, Q 16, Methanol / Nitro may be used as an alternate fuel. ISR Rule Clarification Bulletin Click Here

# STOCK GENERAL RULES

- 1. The snowmobile must have original OEM for the model engine, hood, frame, cowl, gas tank, carburetion, airbox, suspension and variable speed converter. Named components must be OEM for the model and year, or properly filed OEM replacement parts. that supersede the original OEM parts. Factory options are not allowed.
- Factory 600 Super Stock Race Sleds will run in separate 600 class or will add 25lbs to compete combined. (Affiliates Choice)
   Factory 600 Super Stock Race Sleds will be placed by the affiliate. A. Placed in normal 600 class. B. Or will add up to 25lbs to compete combined.
   C. Run as a separate class.
- 2. All snowmobiles must comply with the GENERAL RULES AND REGULATIONS SECTION.
- 3. Drivers in the Stock classes must weigh a minimum of 180 pounds including protective gear. If the driver does not meet the weight requirement, ballast must be added to the snowmobile. Additional fuel and/or optional marginal snow wheels added to the slide rails may be used as ballast.
- 4. The snowmobile must meet the weight as filed by the manufacturer.

Twenty (20) pounds will be added to the snowmobile weight (as filed by the mfr.) for fuel and studs.

NOTICE: Weights are reviewed annually.

5. Commercially available gasoline that is reformulated with up to 10% ethanol are allowed in stock.

#### **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. 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 engine balancing or other reasons.
- 2. Maximum cylinder overbore for wear cannot exceed .020 inches (1/2mm).
- 3. Replacement pistons must be stock OEM for the model.
- 4. There will be no more than one-cylinder base gasket to a cylinder. No changes in engine dimensions can be made by gasket adjustments.
- 5. Spark plugs do not necessarily have to be OEM equipment in Stock classes.
- 6. A maximum of one venturi per cylinder will be allowed in Stock classes. Any exception must be approved in writing by ISR.
- 7. OEM carburetor slide valve and replacement jet components, without modification, are allowed in all classes. No modification to carburetor body will be allowed. OEM fuel Injection as provided OEM must be used (See #8 below). OEM power adders/Turbo's Must be used with no alterations. (clarification)
- 8. On snowmobiles with OEM electronic fuel injection, commercially available electronic control modules may be added to the OEM ECU for increasing or decreasing fuel delivery and allowing ignition mapping changes.
- 9. Airbox may not be modified. Air box may be removed. If removed, must be replaced with commercially available foam/paper/fabric air cleaners. Individual air cleaners should be used on each carburetor with suitable connecting adaptors if necessary. A redesigned ram air box is not allowed.
- 10. No additional fuel pumps may be added to stock earbs.
- 11. Oil injection pump must remain in place and remain functional. Lines may be removed and plugged. Oil injector nozzles may be removed, and holes may be plugged. Premix gasoline may be used.
- 12. Engine must retain OEM for the model cooling system
- 13. On liquid cooled snowmobiles, except for quick disconnects and flow directional valves, the cooling circuits cannot be modified or removed. Thermostats may be removed. When the snowmobile is on the course the cooling fluid must flow unobstructed throughout the entire cooling system (no short circuiting).
- 14. Harmonic balancer may not be removed.
- 15. The complete OEM exhaust system must be used as furnished and filed by the manufacturer for the model. (This is construed as to include the exhaust gaskets at engine and exhaust system mating surfaces)

#### **DRIVE**

- 1. Any combination of springs, weights and ramps may be used in the clutches. There is no maximum clutch engagement RPM.
- 2. No machining on clutches to accommodate springs and weights.
- 3. No machining, grinding, cutting, or welding allowed on clutches unless otherwise specified.
- 4. Metal may be removed but not added to primary clutch ramps or flyweights.
- . Secondary clutch cams may be cut to any angle. Billet helixes allowed.
- 6. No overdrive machining.
- 7. Drive belt need not be OEM for the model.
- 8. Any drive chain and sprockets may be used.
- 9. Track sprockets/drivers must remain OEM for the brand.
- 10. Track drive sprockets may be changed to use a 2.52-inch pitch drive to accommodate a designated R rated track. Sprockets must be OEM for the brand and of the same material and diameter (+/- 0.5 inches) as the OEM sprockets for the model.
- 11. OEM for the model brake system including master cylinder, caliper, and disk, must remain as produced by the OEM and must be fully functional and mounted in the OEM location. No other brake components may be added.

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

#### CURRENT TECHNOLOGY FOX "AIR SHOCKS" ARE CONSIDERED HYDRAULIC DAMPED SHOCKS FOR THIS APPLICATION.

- 1. Any steel suspension springs allowed. OEM for the model design concept must be maintained.
- 2. Functional suspension required.
- 3. Shocks must remain OEM for the model and remain in the OEM location. On rebuildable shocks, spacers may be added internally to limit rebound travel, but not compression travel.
- 4. Handlebar extensions are allowed. All ends must be plugged. (See diagram in GENERAL RULES AND REGULATIONS SECTION).

#### **SKIS & SKI RUNNERS**

- 1. Aftermarket skis allowed. Skis must be commercially available and marketed through normal sales activity. Minimum aftermarket ski length is 40 inches. Ski width may not be trimmed. Skis may not be interchanged between brands. Replacement ski must be the same material as OEM ski for the model (i.e., plastic to plastic, steel to steel). Lower ski surface must remain OEM material.
- 2. Skis may be reinforced but must remain in the original configuration. This reinforcing must be on upper surface of the ski only
- 3. Ski runners may be removed or replaced. Bolt holes may be covered.
- 4. Ski skins not allowed unless OEM for the model.
- 5. Ski lubrication not allowed.
- 6. If ski runner (wear bar/carbide) does not go up through the ski, ski runner front must be 2 inches off the ground (with machine at rest) to prevent ski runner from digging into the ground.

#### TRACK SUSPENSION

#### CURRENT TECHNOLOGY FOX "AIR SHOCKS" ARE CONSIDERED HYDRAULIC DAMPED SHOCKS FOR THIS APPLICATION.

- 1. The complete suspension must be used as furnished and filed by the manufacturer. There will be no suspension options permitted in Stock classes. Track suspension may be located anywhere in the tunnel where the manufacture has drilled, partially drilled, or marked for mounting holes. Pre-drilled plates may be drilled out to facilitate suspension adjustment. Pre-drilled backing plate holes may not be enlarged or slotted.
- 2. Any steel or titanium suspension springs allowed. Torsion springs (not coil springs) may be shortened at the long end to prevent contact with the track. OEM for the model design concept must be maintained.
- 3. Functional suspension required.
- 4. Marginal snow wheels and related hardware may be added to or removed from slide rails. Structural integrity must be maintained.
- 5. Rear axle idler wheels must remain OEM for the model. QEM for the model rear idler wheels may be added to the rear axle. For durability purposes rear axle idler wheel and axle assembly may be replaced with another brand OEM rear axle or wheel assemblies.
- 6. Shocks must remain OEM for the model and remain in the OEM location. On rebuildable shocks, spacers may be added internally to limit rebound travel, but not compression travel.
- 7. No device may be added that stops the suspension from going thru its normal bottoming action.

#### **TRACK & TRACTION**

- 1. A track manufacturer who offers this product commercially available may submit one track design with clip configurations to ISR Race Rules Committee for approval. Approval will be based on the track manufacturer's adherence to rib/lug height, track durometer, track weight and other factors.
- 2. The track must be OEM for the year and model or one of the designated tracks listed below: CAMOPLAST: 9811R, 9812R, 9814R, 9814R, 9844R, 9845R, 9846R, 9862R, 9902R, 9927R, 9810R, 9861R, 9904R, 9929R, 9937R, 9976R, 486700025, 486700040 KIMPEX: 04-848K.
- 3. To be eligible for competition, the above listed tracks must be commercially available.
- 4. No cutting, trimming, or shaving of the track or rubber studs/snow lugs allowed. The track must be used as produced by the molder of the track. Acceptable traction products allowed. [EXCEPTION] Snow Drag, approved trimming, cutting, shaving allowed.
- 5. Minimum lug height from the flat of the track is 0.50 inch, the maximum lug height of a replacement track is 1 3/8 inch.
- 6. The track may not be reversed.
- 7. Track clips and guide clips may be replaced when worn. Guide clips may be removed and replaced with track clips. Track clips may be removed and replaced with guide clips. The track must retain the original number of clips with which it was produced.

#### **FRAME & BODY**

- 1. Snowmobile width shall be as produced by the OEM manufacturer.
- 2. Any chassis alterations, additions, or removals, which alter stock appearances or dimensions are not allowed.
- 3. Tunnel can be repaired but must remain OEM for the model length.
- 4. A rod may be placed in the roll on the edge of the running board.
- 5. No additional venting allowed.
- 6. Protective taping or screening will be restricted to the external openings only.
- 7. The OEM fuel tank is the only tank that can be used for fuel supply. The oil tank may not be used as fuel tank.

#### **IGNITION & ELECTRICAL**

- 1. Ignition must be OEM for the year and model.
- 2. CDI/ECU module may be reprogrammed.
- 3. No aftermarket device allowed which interrupts ignition for launch control or traction control unless OEM for the model.
- 4. Lighting coil must remain in place.
- 5. Stock snowmobiles will be allowed to add or remove tachometers, speedometers, or heat gauges (openings must be closed).
- 6. Electrical wiring must remain in place.
- 7. Headlight assembly may be removed (opening must be closed). Headlight consoles are not considered part of headlight assembly.
- 8. Aftermarket sensors of any type can only be installed in the wye pipe or the exhaust canister.

# **IMPROVED STOCK RULES**

In stock and stock-based classes, no change or modification is allowed unless specifically 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.

#### **IMPROVED STOCK WEIGHTS**

IMPROVED STOCK	Max cc	Grass	Ice	Snow
Imp Stock 600 2 cyl	600	645	645	N/A
Imp Stock 600 3 cyl	600	675	675	N/A
Imp Stock -RX-1 4 stroke		750	750	N/A
Imp Stock 700 2 cyl	700	685	685	N/A
Imp Stock 700 3 cyl	700	710	710	N/A
Imp Stock -4 stroke	•	750	750	N/A
Imp Stock 800 2 cyl	800	685	685	N/A
Imp Stock 800 3 cyl	800	750	750	N/A
Imp Stock 800 4-stroke		750	750	N/A
Imp Stock 1000 2 cy	1000	685	685	N/A
Imp Stock 1000 3 cyl	1000	750	750	N/A
Imp Stock 1000 4-stroke		750	750	N/A

MINIMUM COMBINED WEIGHT IS THE WEIGHT OF THE SNOWMOBILE AND DRIVER. Weight may be adjusted at any time in the interest of fair competition.

# IMPROVED STOCK GENERAL RULES

- 1. Improved Stock classes may be offered at the promoter's option at any drag race.
- 2. Snowmobile must begin as a qualified stock snowmobile. All snowmobiles must comply with GENERAL RULES AND REGULATIONS SECTION.
- 3. Any alterations allowed in Stock are allowed in Improved Stock.
- 4. Snowmobile movement will be from Stock to Improved Stock.
- 5. Minimum combined weight is the weight of the snowmobile and the driver. NOTICE: Weights are reviewed annually.
- 6. Any snowmobile may be reclassified and reassigned in the interest of fair competition.
- 7. Improved Stock snowmobiles may advance to higher displacement class and not be required to meet the minimum weight for that higher class.
- 8. The snown oblie must have original OEM for the model engine, frame, suspension, fuel tank and seat. Named components must be OEM for the model and year, or properly filed OEM replacement parts that supersede the original OEM parts. Factory options are not allowed.

#### **ENGINE**

- 1. Engine components must be OEM for the model unless otherwise specified. May be modified internally, but engine must retain its complete external stock appearance and dimensions. Parts identification numbers must not be removed.
- 2. Cylinders must be OEM for the model. Must remain within OEM shell dimensions to include crevices, bulges, etc. No visible external changes allowed even if the area is hidden by another part or bracket. Number of cylinders must be OEM for the model. No external fastening devices allowed to secure or hold cylinders in place.

- 3. The cylinders may be raised to change port height. If a plate is used to raise cylinder height, the plate, including gaskets, cannot exceed 1/2 inch (0.50 inch) in thickness.
- 4. Engine may be bored up to class limit. A one percent (1%) overbore allowed. (EXAMPLE: 670cc engine may be bored up to 707cc's and may not be bored up to 800cc's to run in the 800cc class).
- 5. Crankshaft and crankcase must be OEM for the model. OEM stroke must be maintained. No modification allowed to the external surfaces of the crankcase even if the area is hidden by another part or bracket.
- 6. The cylinder head may be modified internally including changing replaceable combustion chambers and machining out combustion chambers to use replaceable inserts. The visible, outer portion of the cylinder head or cylinder head cover must remain stock appearing, and the spark plug must maintain OEM location.
- 7. Engine components allowable for modification or replacement.

**Bearings** 

Rods (rod center to center must remain the same)

**Pistons** 

Piston pins

Rings

Gaskets

- 8. Reeds and reed blocks may be changed, (external plate may be thicker) if they do not change the outside dimensions of the cylinder or crankcase.
- 9. No external modifications may be made to the crankcase or cylinder to accommodate reed block change.
- 10. Carburetors, flanges, and intake manifold must be OEM for the model. Internal modifications are allowed. Carburetor throat may be bored. Intake concept and location must remain OEM for the model.

On snowmobiles with OEM for the model Electronic Fuel Injection the throttle body, including the exterior, may be modified for increased fuel flow. No welding of the throttle body allowed (not even for repairs). Systems that allow increased fuel delivery may be used (i.e., Power Commander or others). The stock control module must be used. No changes for increased airflow allowed. Increasing the size of throttle body throat not allowed. OEM for the model throttle plate (butterfly) must be used without modification. The Straightline Performance Kit for 800 CC Ski Doo/BRP sleds, Part # 141-100 E-Tec Fuel Programmer and the Speedwerx Fuel Programmer are allowed for use in competition in the following Drag Race classes. Improved Stock ISR Bulletin 18/19-008

- 11. Except as noted, additional fuel delivery system or pressure charging is not allowed.
- 12. Internal and external modifications may be made to the airbox. The airbox may be removed. Air filters may be used.
- 13. Oil pumps may be removed or disabled. Oil tank must be removed. Oil injector nozzles may be removed and plugged. (If oil tank and overflow tank are joined the oil tank must be disabled or the joined tanks removed.)
- 14. Flywheel harmonic balancer may not be removed.
- 15. Torque arms allowed.
- 16. Rigid motor mounts allowed. OEM for the model engine location must be maintained. Replacing or adding metallic engine mounts is not allowed. Replacing rubber/cushion parts with more rigid parts is allowed.
- 17. Cooling systems must be operational. May contain disconnects for cool down. Heat exchangers may be relocated, modified, or removed.
- 18. Any functionally silenced exhaust system allowed. A commercially available, functionally silenced muffler/silencer must be installed and operational. (See General Snowmobile Requirements in Brag Racing for details.)
- 19. Exhaust outlet must exit body downward and rearward. (If OEM exhaust exits behind driver, pipe need not go downward). The minimum combined downward, rearward angle is 70° (from centerline of crankshaft). Exhaust pipe must not extend more than 3 in. beyond chassis or body.

#### **DRIVE**

- 1. Any primary and secondary clutch may be used.
- 2. Primary clutch and secondary clutch may be modified (no RPM limit).
- 3. Jackshafts, of like material and weight, may be changed to accommodate a clutch change. No welding allowed on a jackshaft. Steel and chrome moly allowed. Titanium not allowed unless OEM for the model. OEM location of shaft must be maintained.
- 4. Any track drive sprocket and non-driving wheels allowed on the track drive axle. Unless specified, no changes in drive, frame, or suspension allowed to accept track drive sprockets.
- 5. Track drive axle and chain case must remain OEM for the model and remain in OEM location.

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

- Any aftermarket rear suspension shock may be used but must resemble the production shock in approximate overall body length, body diameter, and mounting eye overall length.
- 2. Ski stance must be OEM for the model.
- 3. Sted must have a minimum ride height of three (3) inches measured at the lowest point of the bulkhead/skid plate. Measurement points to be centered directly in front of the track drive area, (using the spindle centers to determine center point of bulkhead). Functional suspension required.

#### **SKIS & SKI RUNNERS**

1. Aftermarket skis allowed. Skis must be commercially available and marketed through normal sales activity. Minimum aftermarket ski length must be 40 inches. Ski width may not be trimmed. Skis may not be interchanged between brands. Lower ski surface must remain OEM.

#### TRACK SUSPENSION

- 1. OEM for the model suspension must be used. Suspension may be moved up and down in the tunnel (limit 3 inches, limited by the manufactures predrilled holes in the buck plate mount. OEM location must be maintained and may not protrude beyond tunnel configuration. Mechanical adjusters are allowed on the front torque arm only.
- 2. Functional suspension required.
- 3. Any aftermarket rear suspension shock may be used but must resemble the production shock in approximate overall body length, body diameter, and mounting eye overall length.
- 4. Any size, material, and number of rear axle idler wheels allowed. Unless specified, no modification to chassis or suspension allowed to accept idler wheels. Rear axle may be moved upward in the slide rails to accept larger rear idler wheels.
- 5. Commercially available long track kits allowed. Kit must be used in its entirety.
- 6. An approved tunnel enclosure must be added.

#### **TRACK & TRACTION**

- 1. Any commercially available one-piece molded rubber track allowed. Track must be race designated by the molder of the track. No cleated tracks allowed. Unless specified, no modification to drive, frame or suspension allowed to install track.
- 2. Commercially available long track rails and rail extensions allowed.
- 3. Track must remain untouched (no trimming).
- 4. Minimum lug height from the flat of the track is 0.50 inch, the maximum lug height of a replacement track is 1/2 inch.
- 5. 144" maximum track length

#### **FRAME & BODY**

- 1. Any chassis alterations, additions, or removals, which alter stock appearance or dimensions are not allowed. Tunnel can be repaired but must maintain OEM length.
- 2. Smaller fuel tanks may be used, but OEM type "shells" must contain the smaller tank. Tank must be securely fasted to the tunnel. Oil injection tanks may not be used as a fuel tank.
- 3. Removal of any insulation that alters the outside stock appearance is not allowed
- 4. Any hood or side panels that maintain stock appearance (as defined) for the make and model may be used.

#### **IGNITION & ELECTRICAL**

- 1. Any commercially available ignition allowed. (Complete ignition can be replaced)
- 2. Tachometers, speedometers and/or heat gauges may be added or removed.
- 3. Open instrument holes must be closed.
- 4. Grass/ Ice / Snow, Electrical wires/wire harnesses and instrument drive cables may be removed.
- 5. Headlight assembly may be removed (opening must be closed). Headlight consoles are not considered part of headlight assembly.

# Improved Stock 1000 Rules GENERAL RULES

- 1. Minimum combined (driver and snown ob. e) weight is seven hundred fifty (750) pounds, triple and four-cylinder engines.
- 2. Twin cylinder engines may weigh 685 pounds.

#### **ENGINE**

- 1. Any stock qualified model may be used, and the engine may be bored up to class limit. A one (2) percent over class cc allowed (1020 cc).
- 2. Rod center to center may be changed.
- 3. Stroke may be changed
- 4. Crankshaft may be modified or replaced.
- 5. Crankshaft gears may be changed.
- Cylinders may be modified internally and externally. Cylinders may be replaced with aftermarket cylinders.
- Cylinders may not be interchanged between brands. Welding on crankcase is not an acceptable method to adapt aftermarket or other OEM cylinders to crankcase.
- 8. Any commercially available head allowed.
- 9. Intake concept and location must remain OEM for the model.
- 10. The reed valve mounting area on the crankcase may be modified to change reed angle. The upper surface of the intake tract may be reinforced by welding or bonding.
- 11. More than one OEM type fuel pump allowed.
- 12. In Improved Stock 1000, 2-cylinder, 3 cylinder, 2 stroke engines carburetors, mounting spigots and air boots may be modified or replaced. Flange can be modified internally.
- 13. Improved Stock 1000 four stroke engines must compete in stock trim.

14. Airbox may be removed.

#### **TRACK & TRACTION**

1. Commercially available long track kits allowed. Kit must be used in its entirety.

#### **IGNITION & ELECTRICAL**

1. Any ignition may be used. Electrical stutter boxes launch control and traction control allowed.

#### **PRO STOCK**

#### **PRO STOCK CLASSES AND RULES**

In stock and stock-based classes, no change or modification is allowed unless specifically 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. Pro stock classes are frozen for a period of two years. The next year for any rule changes except safety items will be 2025. Effective 4-21-2022

#### **PRO STOCK WEIGHTS**

	Max			7
PRO STOCK	СС	Grass	Ice	Snow
Pro Stock 600 2 cyl	600	550	550	N/A
Pro Stock 600 3 cyl	600	600	600	N/A
Pro Stock 700 2 cyl	700	550	550	N/A
Pro Stock 700 3 cyl	700	600	600	N/A
Pro Stock 800 2 cyl	800	550	550	N/A
Pro Stock 800 3 cyl	800	625	625	N/A
Pro Stock 1000 2 cyl	1000	550	550	N/A
Pro Stock 1000 3 cyl	1000	625	625	N/A

MINIMUM COMBINED WEIGHT IS THE WEIGHT OF THE SNOWMOBILE AND DRIVER. Weight may be adjusted at any time in the interest of fair competition.

# PRO STOCK GENERAL RULES

- 1. Pro Stock snowmobiles must originate as ISR stock qualified snowmobiles.
- 2. OEM serial numbers are not required, but engine and frame must have unique identification numbers that identify the OEM model and year. (See #4 below.)
- 3. The OEM for the model frame, and engine, must be used. Unless otherwise specified, all parts and components including the hood, seat, engine, drive, and chassis must retain OEM stock appearance for the model.
- 4. The OEM for the model frame including bulkhead and tunnel must be used as structural members to mount the engine, drive components and suspension. Tunnel may be repaired or replaced.
- 5. An OEM for the brand "like chassis" may be substituted for the OEM chassis. "Like chassis" must have the same front suspension concept as the original chassis (i.e., trailing arm, "A" arm, or strut). When engine is installed in the "like chassis," the crankshaft must be in the OEM location for the chassis. The engine installation must conform to the engine location rules.
- 6. Any snowmobile may be reclassified in the interest of fair competition.
- 7. Snowmobile must comply with GENERAL RULES AND REGULATIONS SECTION.
- 8. Any alterations allowed in Stock and Improved Stock classes are also allowed.

#### **ENGINE**

- 1. Crankcase, cylinders, and crankshaft must be from the same stock qualified model. Must retain original number of cylinders.
- 2. Crankcase may be modified internally provided the engine retains its complete external stock appearance and dimensions except as noted in these rules.
- 3. The only external modification allowed to the crankcase is to the cylinder mounting surface and must be covered by the OEM for the engine cylinder base gasket.
- 4. Crankshaft may be changed.
- 5. Crankshaft may be modified.

- 6. Stroke may be changed. Connecting rod length may be changed.
- 7. Four-cylinder crankshaft gears may be changed with any OEM crankshaft gear.
- 8. Cylinders must be OEM for the model and mounted in OEM location and orientation.
- 9. Cylinder may be modified internally provided the engine retains its complete external stock appearance and dimensions except as noted in these rules.
- 10. Cylinder overbore is limited to a 2% increase in displacement over the cc limit for the class.
- 11. Cylinder may be bored up or sleeved down.
- 12. OEM cylinder outer shell dimensions' modification must be within .020 inches (1/2mm) per side/.040 inches (1mm) overall of the OEM cylinder dimensions. Modification must be blended into original casting to retain OEM appearance.
- 13. Cylinder height may be modified to change port height. If a plate is used to raise cylinder height, the plate, including gaskets, cannot exceed 1/2 (.500) inch.
- 14. Any commercially available cylinder head allowed. Cylinder head may be replaced with aftermarket billet or cast. The OEM cylinder head may be modified internally including changing replaceable combustion chambers and machining out combustion chambers to use replaceable inserts.
- 15. Any carburetor may be used. Only one venturi allowed per cylinder.
- 16. Intake concept and location must remain OEM for the model.
- 17. Fuel injection allowed.
- 18. No turbo-chargers, super-chargers or nitrous allowed.
- 19. Intake concept and location must remain OEM for the model engine with the exception that EFI models may be changed to carburetor induction.
- 20. Reeds and reed cage may be replaced or modified so long as the outside dimensions of the cylinder or crankcase are not compromised.

  External plate may be thicker. No welding or bonding to cylinder or crankcase to accommodate reed assembly allowed. Reed assembly changes must be accomplished by bolting only.
- 21. Other engine components allowable for modification or replacement:

Bearings

Rods

Pistons, pins, and rings

Gaskets

Bolt-on intake and exhaust flanges

Fuel pump

**Engine mounts** 

Airboxes may be removed.

- 22. Engine must retain original cooling concept. (Liquid, fan, or ree-air cooling must be retained but cooling circuits can be modified or removed.)
- 23. Water pumps may be removed.
- 24. Radiators and ducting may be used but must not change OEM appearance. Radiator must not protrude beyond the belly pan and must be within 1/4 inch of the belly pan. Maximum opening in belly pan is one hundred (100) square inches. Radiator must be functional.
- 25. Any functionally silenced exhaust system allowed. Exhaust outlet must not protrude more than three (3) inches beyond the chassis or hood configuration. A commercially available, functionally silenced muffler/silencer must be installed and operational. (See General Snowmobile Requirements)
- 26. Exhaust outlet must exit body downward and rearward. (If OEM exhaust exits behind driver, pipe need not go downward). The minimum combined downward, rearward angle is 70° (from centerline of crankshaft). Exhaust pipe must not extend more than 3 in. beyond chassis or body.

#### **DRIVE**

- 1. Any primary or secondary clutch may be used.
- 2. Clutch jackshaft may be changed or modified (no welding on jackshaft).
- 3. Relocation of crankshaft, jackshaft, drive shaft (front drive axle) allowed.
- a. Crankshaft may be moved up or down, forward, or backward if engine and primary and secondary clutch is within confines of the hood, console, and side panels and front close off panel on the bulkhead.
- b. No altering of bulkhead for engine movement other than the engine mounts or engine plate to hold engine.
- c. Cankshaft to lackshaft center to center is allowed +/- 1" (one inch) tolerance from OEM specification for the model.
- Chain case may be moved anywhere on side of bulkhead or tunnel however jackshaft must remain on top of tunnel or front side of bulkhead.

  Left side drive axle bearing, bearing carrier, and bolts may not be below tunnel or bulkhead side.
- e. Any QEM or aftermarket chain case allowed.
- f. Jackshaft to rear axle of suspension center to center distance measurement may not exceed sixty-four (64) inches measured in a parallel line with and adjacent to the top of tunnel. For (Ski Doo XP, XM, XS)(Polaris Axis, Matrix) chassis sixty-eight (68) inches measured in a parallel line with and adjacent to the top of tunnel. Other chassis will be evaluated for non-conformance to the 64"rule. Maximum track length is 144" inches. (Clarification 4-21-22)

Any track drive sprocket and non-driving wheels allowed on the track drive axle. Unless specified, no changes in drive, frame, or suspension allowed to accept track drive sprockets.

- 4. Drive reduction system must be OEM for the model concept (i.e., chain, belt, or gear). Chain case / gear case and cover may be from any stock qualified model within the brand.
- 5. Chain case / gear case modification is not allowed. Chain case / gear case must be functionally driving the snowmobile with the OEM for the model drive concept (i.e., chain, belt, or gear).
- 6. Any chain, belt, sprockets, and gears allowed for drive reduction system.
- 7. Brake assembly may be on either the jackshaft or the track drive axle.
- 8. Brake caliper may be either dual opposing piston or single piston type.
- 9. Minimum brake disk diameter is 7.0 inches. (If brake disk is mounted to track drive axle and a dual opposing piston caliper is used, the disk minimum diameter is 6 inches.)
- 10. Pro Stock qualified snowmobiles need not comply with Modified brake requirements when jumping up into Modified classes.

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

- 1. Front suspension components including struts, arms, spindles, rod ends, spherical joints, tie rods, linkages, IFS trailing arms and radius rods must remain OEM design concept but may be changed in shape and appearance. All must remain in the OEM location of the chassis.
- 2. Sway bar and links may be removed. If sway bar is disconnected, it must be removed.
- 3. Functional suspension required.
- 4. Material substitution is allowed. Replaced components must be as strong or stronger than OEM components.
- 5. Shock absorbers may be replaced. Any commercially available, hydraulically or air damped shocks may be used. Shocks must remain in a location + or 3 inches from original OEM location.
- 6. Spindles may be strengthened or replaced with a stronger spindle. Spindle height must remain within 10% of the original OEM dimensions.
- 7. Minimum ski stance (center to center of the ski runners) is 38 inches.
- 8. Ski widening devices allowed. No maximum ski stance width.
- 9. Handlebars, handlebar grips and controls may be modified or changed.

#### SKIS AND SKI RUNNERS

- 1. Any commercially available OEM appearing, or aftermarket ski may be used provided the original spring concept remains the same.
- 2. Minimum ski length is twenty (20) inches.

#### TRACK SUSPENSION

- 1. Any track suspension allowed that can be installed within the confines of the tunnel.
- 2. Material substitution is allowed. Replaced components must be as strong or stronger than OEM components.
- 3. Shock absorbers may be replaced. Only commercially available, hydraulically or air damped shocks specified for use on a snowmobile are allowed.
- 4. Outboard mounted shocks do not compromise OEM stock appearance.
- 5. Functional suspension required.

#### **TRACK & TRACTION**

- 1. Any commercially available one-piece molded rubber track allowed. Track must be race designated by the molder of the track. No cleated tracks allowed.
- 2. Track and track suspension must fit within the confines of the tunnel.
- 3. Track lug height may be trimmed to a minimum of ½ inch lug height. No other track trimming allowed.
- 4. Holes for traction products must be a minimum distance of 5/8 inch from track edge or any other hole or opening in the track. A maximum of 2 holes allowed in each track segment outside of each slide rail. A maximum of 4 holes allowed in each track segment inside the slide rails. (A total of 8 holes per track segment.)

#### **FRAME AND BODY**

- 1. The OEM for the model frame including bulkhead and tunnel must be used as structural members to mount the engine, drive components and suspension components. Tunnel may be repaired or replaced.
- 2. Chassis reinforcement allowed. No lightening holes can be drilled that alter the outside appearance for the model.
- 3. Structural integrity must be maintained. Replaced components must be as strong or stronger than OEM components. The Race / Tech Director shall have the authority to determine structural integrity.
- 4. Access openings for component accessibility will be allowed, but must be closed with original type materials, i.e., hinged clutch covers.
- 5. Snownobiles using production or production replacement tunnels that measure less than 1/8 or .125 inch in thickness shall have ONE of the following:
- A. Additional sheet or sheets of metal to the tunnel to achieve .125 thickness. The sheet metal shall be the same width as the tunnel and shall extend from the rear of the tunnel to the horizontal centerline of the track drive axle. Tunnels 1/8-inch (.125) thick or thicker do not require this added sheet provided that the 1/8-inch (.125) tunnel extends to the horizontal centerline of the track drive axle.
- B. Two (2) tunnel protectors permanently fastened to the inside of the tunnel. Tunnel protectors must be minimum 1.500 inch tall (height) and may be either rectangular aluminum tube or machined aluminum. The tunnel protectors shall extend from the rear of the tunnel to the horizontal centerline of the track drive axle.

Tunnels that are 1/8-inch (.125) thick or thicker do not require additional protection.

- 6. Hood to belly pan molding must remain intact. The molding may be lightened if it does not alter the outside OEM appearance.
- 7. Seat must remain in OEM contour and be stock appearing. Seat may be lowered equally front to rear but must be at least six (6) inches thick (or OEM height if less than 6 inches) at its minimum dimension (seat height will be measured from the top of original tunnel to top of seat in rider less state. Measurements will be made at the lowest point of the seat. The rigid console cover may be lowered to blend into seat contour. Seat must maintain 24 inches of contact with the tunnel.
  - Aftermarket seats may be used that conform to the above stated rules concerning OEM seat. No fiberglass or carbon fiber seats, seat must be of conventional style (padding and upholstery) and commercially available.
- 8. The outside gas tank shell must remain intact and in its OEM location. The fuel tank may be modified to accommodate a fuel cell. The fuel cap may be replaced with the fuel cell cap. All fuel must be contained in the OEM for the model fuel tank location. The use of a fuel cell used within the above rule will not compromise OEM appearance.
- 9. Front air dams allowed. Must be a minimum of 2 inches above the ground with front suspension totally compressed.
- 10. Except for front air dam (which requires 2" inch clearance), all other parts and components must maintain a minimum of 1" inch ground clearance with the suspension fully compressed.

#### **IGNITION AND ELECTRICAL**

- 1. Any ignition may be used. Electrical stutter boxes launch control and traction control allowed.
- 2. External electric starters are legal.
- 3. Any instrumentation allowed. Tachometer, speedometer, or heat gauges may be added or removed. Open instrument holes must be closed.
- 4. Electrical wiring may be removed.
- 5. Headlight assembly may be removed (opening must be closed). Headlight consoles are not considered part of headlight assembly.

# PRO STOCK 1000

#### **ENGINE**

- 1. Aftermarket cylinders for the brand are allowed.
- 2. Cylinders must be commercially available.
- 3. Cylinders may not be interchanged between brands. Welding or bonding on a drankcase is not an acceptable method to adapt aftermarket cylinders.
- 4. Any commercially available cylinder head allowed.
- 5. The reed valve mounting area on the crankcase may be modified to change reed angle. The upper surface of the intake tract may be reinforced by welding or bonding.

#### IGNITION & ELECTRICAL

- 1. Any ignition may be used. Electrical stutter boxes launch control and traction control allowed.
- 2. External electric starters are legal.

# PRO STOCK TURBO GENERAL RULES

All snowmobiles competing in Pro Stock Turbo class must comply with the GENERAL RULES AND GENERAL SNOWMOBILE REQUIRMENTS SECTION.

- 1. Class is open to all OEM 4-stroke snowmobiles only.
- 2. Engine and chassis combination used MUST have been available as a mass production OEM 4-Stroke snowmobile but does not need to be turbocharged from OEM. Example: Yamaha RX-1, Ski Doo 1200, Yamaha Nytro, Skidoo ACE, and all other OEM 4-strokes snowmobiles.
- 3. IHI OEM unprodified turbocharger from an Arctic Cat F1100 turbo snowmobile or Yamaha Sidewinder/Thunder Cat must be used. This is a SPEC TURBO class with no other type of turbocharger allowed. See engine section for accepted part numbers.
- 4. NO OTHER turbochargers are allowed.
- Race Director shall have the authority to determine structural integrity.
- 6. Engine and chassis may NOT be interchanged between brands. Engine must have been available in chassis used.
- No oxygenated fuels or any alcohol fuels allowed gasoline only.
- 8. Class weights may be adjusted at any time by Race Director in the interest of fair competition.
- 9. Minimum weight of driver and snowmobile for 3- & 4-cylinder engines is 720 pounds.
- 10. Minimum weight of driver and snowmobile for 2-cylinder engines is to be 685 pounds.
- 11. Race vehicles advancing to the next class must meet all the safety requirements of the advanced class.

#### **ENGINE**

- 1. Engine must have been OEM manufactured for mass production snowmobile use.
- 2. Aftermarket manufactured engine blocks and cylinder heads NOT allowed.
- 3. Cylinder maximum overbore is limited to 2 percent over OEM bore size for block used.
  - Arctic Cat 2 cylinder limited to 1056 displacement +2% over bore allowed.
  - Yamaha/Arctic Cat 3 cylinder limited to 998 displacement +2% over bore allowed.
  - Ski Doo 3 cylinder limited to 1170 displacement +2% over bore allowed.
  - Yamaha 3 cylinder limited to 1049 displacement +2% over bore allowed.
  - Ski Doo 3-cylinder ACE limited to 899 displacement +2% over bore allowed.
  - Yamaha 4 cylinder limited to 998 displacement +2% over bore allowed.
- 4. Can be fuel injected or carbureted. Only one venturi per cylinder.
- 5. Air to Air Intercoolers only. Intercooler can be OEM or aftermarket. No artificial cooling of any way allowed to intercoolers
- 6. No supercharging, Methanol Injection, Nitrous Oxide, or any artificial performance enhancing fluids or gases allowed
- 7. All snowmobiles may use a single OEM Artic Cat/Yamaha IHI turbocharger. The OEM turbocharger must not be modified in any way to enhance performance or compromise integrity and safety of turbocharger. OEM part numbers allowed 3007-806 and 3020-386.
- 8. Turbine housing and/or Compressor cover may be rotated or clocked to facilitate installation.
- 9. Aftermarket headers may be used. Relocation of turbocharger allowed. Exhaust system must fit within overall snowmobile maximum length, height, and width rules.
- 10. Any type of OEM or aftermarket intake manifold may be used.
- 11. The turbocharger maybe used as a functional silencer on approved engine and turbo combinations listed above.
- 12. Turbo exhaust must be constructed in a manner that the exhaust outlet is not directed at driver or competitor.
- 13. Any type of OEM or aftermarket standalone engine management allowed.
- 14. All internal engine modifications allowed if max displacement is not exceeded
- 15. Remote electric starters are allowed.

#### **FRAME and BODY**

- 1. The OEM for the model frame and engine combination must be used.
- 2. Relocation of crankshaft, jackshaft, and driveshaft NOT allowed. No tolerance from actual shaft locations compared to OEM specifications will be allowed.
- 3. The OEM for the model frame including bulkhead and tunnel must be used as structural members to mount engine, drive components, and suspension. The tunnel maybe replaced or repaired.
- 4. The rear portion of tunnel to the rear of front track suspension mount maybe modified or replaced with aftermarket rear tunnel portion to aid in incorporating or fitting safe and effective tunnel enclosures.
- 5. Rear tunnel enclosure must meet specs for Pro Stock snowmobiles under "GENERAL SNOWMOBILE REQUIRMENTS section. Race director will have final say in rear tunnel enclosures.
- 6. Snowmobiles using production or aftermarket tunnels that measure less than 1/8 or .125 inch in thickness shall have ONE of the following:
  - A. Additional sheet or sheets of metal to the tunnel to achieve .125 thickness. The sheet metal shall be the same width as the tunnel and shall extend from the rear of the tunnel to the horizontal centerline of the track drive axle. Tunnels 1/8-inch (.125) thick or thicker do not require this added sheet provided that the 1/8-inch (.125) tunnel extends to the horizontal centerline of the track drive axle.
  - B Two (2) tunnel protectors permanently fastened to the inside of the tunnel. Tunnel protectors must be minimum 1.500 inch tall (height) and may be either rectangular aluminum tube or machined aluminum. The tunnel protectors shall extend from the rear of the tunnel to the horizontal centerline of the track drive axle. Tunnels that are 1/8-inch (.125) thick or thicker do not require additional protection.
- Nowmobiles must resemble a stock model and profile. Minimum handlebar height of 30" from ground to center of tube.
- 82 The hood and belly pan may be removable if OEM appearance for the declared model and brand is maintained. One-piece hood with side panels or an air dam molded in are allowed.
- 9. Front air dams allowed. Must be a minimum of 2 inches above the ground with front suspension fully compressed.
- 10. Aftermarket body panels and approved duplications of production bodies of any material will be permitted.
- 11. No additional bodywork that changes stock appearance allowed.
- 12. Vent openings may be covered.
- 13. Aerodynamic devices, airfoils, and wings are prohibited.

- 14. Openings for component accessibility are allowed.
- 15. Cowl or gas tank area must blend into tunnel.

#### **CLUTCH and DRIVE**

Any primary or secondary clutch may be used and must be CVT belt designed for snowmobile use.

- 1. Clutch cover must meet requirements for Pro Stock snowmobiles listed in section "GENERAL SNOWMOBILE REQUIREMENTS"
- 2. Jack shaft and drive shaft can be aftermarket manufactured with any type of material. No welding on shafts allowed.
- 3. Aftermarket track drivers allowed, fixed or roller.
- 4. Jackshaft, driveshaft, and crankshaft may not be moved from original location.
- 5. Chain case must retain original OEM location and position in tunnel.
- 6. Chain case can be OEM or aftermarket. Drive reduction may use gear, belt, or chain to connect jackshaft to driveshaft. Chain case and gear case must be functionally driving snowmobile.
- 7. Any track drive sprockets and non-drive wheels allowed on track drive axle. Unless specified, no changes in drive, frame, or suspension allowed to accept track drive sprockets.

#### TRACK SUSPENSION, TRACK and TRACTION

See "GENERAL SNOWMOBILE REQUIREMENTS" section for Track Suspension, Track, and Traction requirements for Prostock Snowmobiles.

- 1. Any commercially available one-piece molded rubber "R" rated track designated for racing by molder of track allowed. Studs maybe no more than 3/4 inches above the highest point of track or track lug. Minimum lug height 1/2 inch. Maximum lug height 1.250 inches
- 2. Track can be from 121 inches to 159 inches if R or Race rated from molder of track. Note: Overall snowmobile length maximum is 144 inches.
- 3. Track lug height maybe trimmed to a minimum 1/2-inch lug height. Minimum track width 13.5 inches.
- 4. Track suspension maybe aftermarket or OEM. Any aftermarket suspension must maintain structural integrity.
- 5. Track suspension must have a minimum of 2 inches of remaining compression travel with driver on snowmobile measured at rear bumper.

#### SKI SUSPENSION, STEERING, and SKIS

- 1. Sled must have a minimum ride height of three (3) inches measured at the lowest point of the bulkhead/skid plate. Measurement points to be centered directly in front of the track drive area, (using the spindle centers to determine center point of bulkhead) and must retain 2 inches of remaining compression travel with driver on sno ymobile.
- 2. Stock spindles may be reinforced or replaced. Replacement spindles must have a minimum wall thickness of .120 inch and minimum outside diameter of .750 inch. An inspection hole is required it wall thickness is not visible.
- 3. If modifications to suspension parts are made, structural stegrity must be maintained. Minimum ski stance (center to center of the ski runners) is 38 in
- 4. The use of aftermarket front suspension allowed.
- 5. Minimum ski length is 20 inches. Any commercially available OEM appearing of aftermarket skis maybe used.

#### **BRAKES**

- 6. Brake assembly maybe on either the jackshaft or track drive axle.
- 7. Brake caliper maybe either dual piston or single piston.
- 8. Brake disc must be minimum 3/16-inch-thick (.015-inch tolerance) 7-inch diameter. Only a steel manufactured brake disc is allowed. Aluminum, titanium, or carbon fiber brake discs are not allowed.
- 9. Braided steel brake lines are mandatory.
- 10. Brake driveshalt systems located outside of tunnel must be enclosed and shielded.

### PRO MOD CLASSES AND RULES

#### **PRO MOD WEIGHTS**

	Max			
PRO MOD	СС	Grass	Ice	Snow
Pro Mod 500 2 cyl	500	550	550	N/A
Pro Mod 600 2 cyl	600	550	550	N/A
Pro Mod 600 3 cyl	600	600	600	N/A
Pro Mod 700 2 cyl	700	550	550	N/A

Pro Mod 700 3 cyl	700	625	625	N/A
Pro Mod 800 2 cyl	800	550	550	N/A
Pro Mod 800 3 cyl	800	625	625	N/A
Pro Mod 900 2 cyl	900	550	550	N/A
Pro Mod 900 3 cyl	900	625	625	N/A
Pro Mod 1000cc 2 cyl	1025	530	530	572
Pro Mod 1000cc 3 cyl	1050	585	585	650
Pro Mod 1000cc 4 cyl	1050	625	625	695

MINIMUM COMBINED WEIGHT IS THE WEIGHT OF THE SNOWMOBILE AND DRIVER. Weight may be adjusted at any time in the interest of fair competition.

# GENERAL SNOWMOBILE RULES

- 1. All snowmobiles competing in the Pro Mod class must comply with GENERAL RULES AND REGULATIONS SECTION.
- 2. Race Director shall have the authority to determine structural integrity.
- 3. Engine and chassis may be interchanged between brands.
- 4. Race vehicles advancing to the next class must meet all the safety requirements of the advanced class.

#### ENGINE

- 1. The engine must have been OEM manufactured for snowmobile use for 600, 700, 800cc classes
- 2. Aftermarket cylinders and crankcases and heads are allowed.
- 3. Cylinder maximum overbore is limited to two (2) percent over the cc displacement for the class.
- 4. Cylinder, crankcase, crankshaft, and heads may be interchanged within the brands.
- 5. Welding on the crankcase or cylinders is allowed.
- 6. Any carburetor or fuel injection may be used. Only one venturiallowed per cylinder.
- 7. EFI models may be changed to carburetor induction.
- 8. Exhaust systems cannot compromise/exceed overall snowmobile length and width.
- 9. Exhaust stinger must be directed downward and rearward.
- 10. Exhaust system must be functionally silenced. (See General Snowmobile Requirements in Drag Racing for details.)
- 11. Exhaust system must fit within overall maximum length and width rules.

#### **IGNITION AND ELECTRICAL**

- 7. Any ignition may be used. Electrical stutter boxes launch control and traction control allowed.
- 8. External electric starters are legal.
- 9. Any instrumentation allowed

#### **SKI SUSPENSION AND STEERING**

- 1. Sled must have a minimum ride height of three (3) inches measured at the lowest point of the bulkhead/skid plate. Measurement points to be centered directly in front of the track drive area, (using the spindle centers to determine center point of bulkhead). Functional suspension required.
- 2 Stock spindles may be reinforced or replaced. Replacement spindles must have a minimum wall thickness of .120 inch and minimum outside diameter of .750 inch. An inspection hole is required if wall thickness is not visible.
- 3. If modifications to suspension parts are made, structural integrity must be maintained.
- 4. Minimum ski stance (center to center of the ski runners) is 38 inches.

#### **SKIS & SKI RUNNERS**

- 1. Any commercially available OEM appearing, or aftermarket ski may be used provided the original spring concept remains the same.
- 2. Minimum ski length is twenty (20) inches.

#### **TRACK SUSPENSION**

- 1. Any aftermarket or OEM suspension is allowed. Modifications to OEM or any commercially available aftermarket suspensions must maintain structural integrity.
- 2. Functional suspension required.

#### **TRACK & TRACTION**

- 1. Any commercially available one-piece molded rubber track allowed. Track must be race designated by the molder of the track. No cleated track allowed.
- 2. Track lug height may be trimmed to a minimum of ½ inch lug height. No other track trimming allowed.
- 3. Minimum track width is 13.5 inches.
- 4. 159" maximum track length

#### **FRAME & BODY**

- 1. Snowmobile must resemble a stock model and profile. Minimum handlebar height 30" inches from ground to center of tube.
- 2. The hood and belly pan may be removable if OEM appearance for the declared model and brand is maintained. One-piece hood with side panels and or air dams molded in are allowed.
- 3. Front air dams allowed. Must be a minimum of 2 inches above the ground with front suspension fully compressed
- 4. Aftermarket body panels and approved duplications of production bodies of any material will be permitted.
- 5. Windshields are required.
- 6. No additional bodywork that changes stock appearance allowed.
- 7. Ventilation openings may be covered.
- 8. Suspension side skirts are prohibited.
- 9. Aerodynamic devices, airfoils, and wings are prohibited.
- 10. Openings for component accessibility are allowed.
- 11. Cow, or gas tank area must blend into seat.
- 12. All seats must be a minimum 2" thick. (Seat and frame-work). Seat must maintain 24 inches of contact with the tunnel Seats other than OEM stock, are allowed, but must resemble production-based seats. Seat should be stock appearing with driver off the sled.
- 13. Commercially available aftermarket and custom frames are allowed. Design and structural integrity are subject to technical inspection for safety and compliance to general rules section.
- 14. All aftermarket and custom frame components except braces, brackets, and gussets must be manufactured from 4130 chrome moly tubing and plate or 7075, 6061, aluminum plate. Use of stock OEM bulkhead allowed, and reinforcement of same is allowed.
- 15. Stock tunnels may be used with any commercially available aftermarket or custom front end.
- 16. Motor mounts and jackshafts may be changed from original location.
- 17. Any engine location is allowed if stock snowmobile profile is maintained.
- 18. Snowmobiles using production or aftermarket tunnels that measure less than 1/8 or .125 inch in thickness shall have ONE of the following:

  A. Additional sheet or sheets of metal to the tunnel to achieve .125 thickness. The sheet metal shall be the same width as the tunnel and shall extend from the rear of the tunnel to the horizontal centerline of the track drive axle. Tunnels 1/8-inch (.125) thick or thicker do not require this added sheet provided that the 1/8-inch (.125) tunnel extends to the horizontal centerline of the track drive axle.

OR

B. Two (2) tunnel protectors permanently fastened to the inside of the tunnel. Tunnel protectors must be minimum 1.500 inch tall (height) and may be either rectangular aluminum tube or machined aluminum. The tunnel protectors shall extend from the rear of the tunnel to the horizontal centerline of the track drive axle

Tunnels that are 1/8-inch (125) thick or thicker do not require additional protection.

#### **DRIVE**

1. The clutch cover must be separate of the cowl configuration and cover the clutch perimeter and faces to the center of the clutch bolt or below. Must be .090 inch 6061 T6 aluminum or equivalent steel material the outer perimeter must be covered with 6-inch belting. No other clutch cover material is allowed. If 0.125-inch aluminum or steel is used, belting is recommended but not required. Snowmobiles with removable side panels may faster clutch covers/ shields to side panels to meet this requirement.

#### BRAKES

- 1. Brake assembly may be on either the jackshaft or the track drive axle.
- 2 Brake caliper may be either dual opposing piston or single piston type.
- 3. Brake disc must be a minimum of 3/16" inch thick (.015-inch tolerance), 6" inch diameter and be dual opposing piston if on the drive axel. 7" if on the jackshaft.
- 4. Steel manufactured brake disc allowed only. No Aluminum, Titanium, or Carbon fiber allowed.
- 5. Braided steel brake lines are mandatory.
- 6. Brake drive shaft system located outside of tunnel must be enclosed and shielded.

#### **IGNITION & ELECTRICAL**

- 1. Any ignition may be used. Electrical stutter boxes launch control and traction control allowed.
- 2. External electric starters are legal.

# **Pro Mod Challenge**

starters are legal.					
	1	Pro N	Λο	d Cha	allenge
	•				
		<u> </u>	rwo St	roke We	ights
	Max	_		_	
PRO MOD	СС	Grass	Ice	Snow	
Up to 825cc 2 cyl	816	500	500	547	- 7
Up to 825cc 3 cyl	816	515	515	624	600
Up to 825cc 4 cyl	816	530	530	668	
826 to 925cc 2 cyl	925	515	515	547	
826 to 925cc 3 cyl	925	530	530	624	
826 to 925cc 4 cyl	925	545	545	668	
926 to 1025cc 2 cyl	1025	530	530	572	
926 to 1025cc 3 cyl	1025	585	585	650	$\mathbf{O}(\mathbf{O})$
926 to 1025cc 4 cyl	1025	615	615	695	
1026 to 1125cc 2 cyl	1125	550	550	592	
1026 to 1125cc 3 cyl	1125	610	610	672	<b>O</b> W
1026 to 1125cc 4 cyl	1125	630	630	719	
1126 to 1225cc 2 cyl	1225	560	560	608	
1126 to 1225cc 3 cyl	1225	630	630	690	
1126 to 1225cc 4 cyl	1225	655	655	738	
1226 to 1325cc 2cyl	1325	570	570	623	
1226 to 1325cc 3 cyl	1325	645	645	705	
1226 to 1325cc 4 cyl	1325	670	670	754	
1326 to 1425cc 3 cyl	1425	670	670	719	
1326 to 1425cc 4 cyl	1425	685	685	769	
1426 to 1725cc 3 cyl	1725	700	700	730	
1426 to 1725cc 4 cyl	1725	720	720	836	

# **Pro Mod Two Stroke Rules**

- 1. Engine not to exceed four (4) cylinders
- 2. Two cycle watercraft crankcase and crankshaft from a snowmobile manufacturer may be used.
- 3. Aftermarket billet and cast aluminum cylinder heads allowed.
- cast aluminum cylinders allowed.
- 5. Welding on crankcase allowed.
- 6. Aftermarket crankcase allowed.
- Can be fuel injected or carbureted.
  - Race vehicles advancing to the next class must meet all the safety requirements of the advanced class.

28301

### **Pro Mod**

#### Pro Mod 1000 4 cycle weights

Pro Mod 1000 4 cycle 2 cyl	1020	685	685	730
Pro Mod 1000 4 cycle 3 cyl	1020	720	720	775
Pro Mod 1000 4 cycle 4 cyl	1020	725	725	780

#### **Four Stroke Sled rules**

- 1. The following four stroke engines are allowed:
  - Arctic Cat 2 cylinder limited to 1056 displacement +2% over bore allowed.
  - Ski Doo 3 cylinder limited to 1170 displacement +2% overbore allowed
  - Yamaha 3 cylinder limited to 1049 displacement+2% overbore allowed
  - Yamaha 4 cylinder limited to 998 displacement +2% overbore allowed
- 2. Can be fuel injected or carbureted. Only one venturi per cylinder.
- 3. Air to Air intercoolers only. Intercooler can be aftermarket but must be air to air concept.
- 4. No methanol injection allowed.
- 5. All sleds must use an OEM Arctic Cat/Yamaha IHI turbo charger

  This turbo charger must not be altered or modified in any way to enhance performance.
- 6. Any ignition allowed.

# **HEAVY MOD CLASSES AND RULES**

#### **HEAVY MOD WEIGHTS**

XV	Max			
HEAVY MOD	СС	Grass	Ice	Snow
Heavy Mod 440	440	500	500	500
Heavy Mod 500	500	500	500	500
Heavy Mod 600	600	550	550	550
Heavy Mod 700	700	550	550	550
Heavy Mod 800	800	550	550	550
Heavy Mod 1000	1000	550	550	550

MINIMUM COMBINED WEIGHT IS THE WEIGHT OF THE SNOWMOBILE AND DRIVER. Weight may be adjusted at any time in the interest of fair competition.

#### **GENERAL SNOWMOBILE REQUIREMENTS**

- 1 MINIMUM COMBINED WEIGHT IS THE WEIGHT OF THE SNOWMOBILE AND DRIVER.
- 2. 800cc and 1000cc maximum overall length 144 inches.
- 3. All snowmobiles competing in Heavy Modified class must comply with GENERAL REQUIREMENTS SECTION.
- 4. Race Director shall have the authority to determine structural integrity.
- 5. 4-stroke powered snowmobiles in the 1000cc Heavy Mod. class may no longer incorporate a turbo-charger.
- 6. Race vehicles advancing to the next class must meet all the safety requirements of the advanced class.

#### **ENGINE**

- 1. The engine is an engine manufactured for snowmobile use (this does not include outboard, motorcycle, aircraft, or automotive engines, etc.).

  The Race Rules Committee will approve the validity of all engines. Watercraft crankcase and crankshaft from a snowmobile manufacturer may be used.
- 2. Cylinder maximum overbore is defined as two (2) percent over the cc displacement for the class. Heavy Modified 1000 maximum overbore is defined as five (5) percent over the cc displacement for the class.
- 3. No super charging, turbo charging allowed unless otherwise specified.
- 4. Fuel injection allowed.
- 5. Exhaust not enclosed within the confines of the cowl must point rearward and downward and extend beyond front cross member/spindle centerline. Exhaust system cannot compromise/exceed overall snowmobile length and width.
- 6. Exhaust system must be functionally silenced. (See General Snowmobile Requirements for details.)
- 7. Exhaust system must fit within overall maximum length and width rules.

#### DRIVE

1. Modified 800cc classes and above must have a twin opposed piston caliper braking system with a minimum 3/16 (.015-inch tolerance) inch thick, 7.0-inch minimum diameter brake disc, mounted on the drive axle. Any manufactured brake disc may be milled or drilled in the original pad contact area (all pads inclusive). The disc pad contact area may not be reduced more than 15% of the original pad contact area.

#### **SKI SUSPENSION AND STEERING**

- 1. Sled must have a minimum ride height of three (3) inches measured at the lowest point of the bulkhead/skid plate. Measurement points to be centered directly in front of the track drive area, (using the spindle centers to determine center point of bulkhead) and must retain 2 inches of remaining compression travel with driver on snowmobile.
- 2. Minimum ski stance (center to center of the ski runners) is 38 inches. No maximum ski stance width.
- 3. Ski suspension must have at least one hydraulic shock absorber on each side.

#### TRACK SUSPENSION

1. Must be a minimum of 2 inches of remaining compression travel with driver on snowmobile.

#### TRACK & TRACTION

- 1. Any commercially available one-piece molded rubber track allowed. Track must be race designated by the molder of the track. No cleated tracks allowed.
- 2. Track lug height may be trimmed to a minimum of ½ inch lug height. No other track trimming allowed.
- 3. Minimum track width is 13.5 inches.
- 4. 159" maximum track length

#### **FRAME & BODY**

- 1. Hood must have top and side cowling and must contain at least one thousand three hundred (1300) square inches.
- 2. A skid plate (belly pan) is required.
- 3. Snowmobiles using production or aftermarket tunnels that measure less than 1/8 or .125 inch in thickness shall have ONE of the following:
  - A. Additional sheet or sheets of metal to the tunnel to achieve .125 thickness. The sheet metal shall be the same width as the tunnel and shall extend from the rear of the tunnel to the horizontal centerline of the track drive axle. Tunnels 1/8-inch (.125) thick or thicker do not require this added sheet provided that the 1/8-inch (.125) tunnel extends to the horizontal centerline of the track drive axle.

OR

- B. Two (2) tunnel protectors permanently fastened to the inside of the tunnel. Tunnel protectors must be minimum 1.500 inch tall (height) and may be either rectangular aluminum tube or machined aluminum. The tunnel protectors shall extend from the rear of the tunnel to the horizontal centerline of the track drive axle.
- Tunnels that are 1/8-inch (.125) thick or thicker do not require additional protection.

### **OPEN MOD CLASSES AND RULES**

	Max			
OPEN MOD	СС	Grass	Ice	Snow
Open Mod 600	600			
Open Mod 700	700			
Open Mod 800	800			
Open Mod 1000	1000			
OPEN MOD SPECIALTY				
Open Mod 440	440			
Open Mod 500	500			

#### **GENERAL SNOWMOBILE REQUIREMENTS**

- 1. Competition is open to any snowmobile, either production or one of a kind experimental (which could include rear engine type snowmobiles).
- 2. Minimum wet weight (without gas) is two hundred fifty (250) pounds.
- 3. 800cc and 1000 cc maximum overall length 144 inches.
- 4. All snowmobiles competing in Open Modified Class must comply with GENERAL BULLS AND REGULATIONS SECTION.
- 5. The Race Director shall have the authority to determine structural integrity.
- 6. Race vehicles advancing to the next class must meet all the safety requirements of the advanced class.

#### 4-Stroke Powered Snowmobiles 1000cc Class:

1. Minimum combined weight of 675 lbs. The unmodified Arctic Cat/Yamaha IHI turbo as used in Pro Stock Turbo and Pro Mod Turbo may be used.

#### **ENGINE**

- 1. The engine must have been manufactured for snowmobile use (this does not include outboard, motorcycle, aircraft, or automotive engines, etc.). The Race Rules Committee will approve the validity of all engines. Watercraft crankcase and crankshaft from a snowmobile manufacturer may be used,
- 2. Cylinder maximum overbore is limited to two (2) percent over the cc displacement for the class.
- 3. Open modified 1000 maximum overbore is limited to five (5) percent over the cc displacement for the class.
- 4. No super charging, turbo charging allowed unless otherwise specified.
- 7. Fuel injection allowed.
- 8. Exhaust not enclosed within the confines of the cowl must point rearward, downward and extend rearward beyond front cross member/spindle centerline. Exhaust system cannot compromise or exceed overall snowmobile length and width.
- 9. Exhaust system must be functionally silenced. (See General Snowmobile Requirements in Drag Racing for details.)
- 10. Exhaust system must fit within overall maximum length and width rules.

#### DRIVE

Modified 800cc classes and above must have a twin opposed piston caliper braking system with a minimum 3/16 (.015-inch tolerance) inch thick,
 7.0-inch minimum diameter brake disc, mounted on the drive axle. Any manufactured brake disc may be milled or drilled in the original pad contact area (all pads inclusive). The disc pad contact area may not be reduced more than 15% of the original pad contact area.

#### **SKI SUSPENSION AND STEERING**

- Functional suspension required.
- 2. Minimum ski stance (center to center of the ski runners) is 38 inches. No maximum ski stance width.
- 3. Ski suspension must have at least one hydraulic shock absorber on each side.

#### TRACK SUSPENSION

1. Must be a minimum of 2 inches of remaining compression travel with driver on snowmobile. Functional suspension required.

#### **TRACK & TRACTION**

- 1. Any commercially available one-piece molded rubber track allowed. Track must be race designated by the molder of the track. No cleated tracks allowed.
- 2. Track lug height may be trimmed to a minimum of ½ inch lug height. No other track trimming allowed.
- 3. Minimum track width is 13.5 ".
- 4. 159" maximum track length

#### **FRAME & BODY**

- 1. A skid plate (belly pan) is required.
- 2. Snowmobiles using production or aftermarket tunnels that measure less than 1/8 or .125 inch in thickness shall have ONE of the following:

  A. Additional sheet or sheets of metal to the tunnel to achieve .125 thickness. The sheet metal shall be the same width as the tunnel and shall extend from the rear of the tunnel to the horizontal centerline of the track drive axle. Tunnels 1/8-inch (.125) thick or thicker do not require this added sheet provided that the 1/8-inch (.125) tunnel extends to the horizontal centerline of the track drive axle.

B. Two (2) tunnel protectors permanently fastened to the inside of the tunnel. Tunnel protectors must be minimum 1.500 inch tall (height) and may be either rectangular aluminum tube or machined aluminum. The tunnel protectors shall extend from the rear of the tunnel to the horizontal centerline of the track drive axle. Tunnels that are 1/8-inch (.125) thick or thicker do not require additional protection.

#### **IGNITION & ELECTRICAL**

- Any ignition may be used. Electrical stutter boxes launch control and traction control allowed
- 2. External electric starters are legal.

# OUTLAW

Outlaw is a class designed to allow competition between extremely high horsepower sleds in various chassis designs.

ICE course only, will always limit the competition to two sleds at one time, with a minimum of one lane separation between the sleds. Ice course shutdown (run off) must be a minimum of 2000 feet.

Maximum initial course length is specified as 600 feet for Ice and Snow drags, and 500 feet for Grass and Dirt drags.

Grass and Dirt is not required to have lane separation if track conditions, and spectator safety require different lane placement. Race directors' authority prevails and the decisions on lane selection is not appealable.

All rules for this class are subject to change at any time and without any grace period.

#### **OUTLAW WEIGHTS**

١.,	OUTLAW	Max cc	Grass	Ice	Snow
	2 STROKE NITROUS		585	585	585
	2 STROKE TURBO		625	625	625
	4 STROKE TURBO		625	625	625

# **GENERAL SNOWMOBILE REQUIREMENTS**

All snowmobiles competing in the Outlaw class must comply with GENERAL RULES AND REGULATIONS SECTION.

2. Race Director shall have the authority to determine structural integrity.

3. Competition is open to any snowmobile, either production or one of a kind, experimental units, (which could include rear engine type units).

4. Weight for the Outlaw class shall be as follows:

Two (2) stroke nitrous-585 pounds man and machine

Two (2) stroke turbo-625 pounds man and machine

Four (4) stroke turbo-625 pounds man and machine

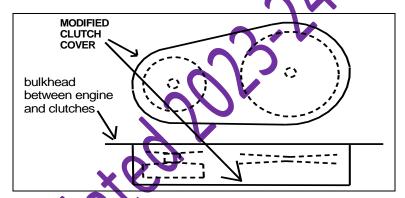
Four (4) stroke V Twin naturally aspirated on Nitro Methane. -675 lbs. man and machine. (This is a Specialty class and has rules that are in development as the season progresses.) This class may not be ran in future seasons, if issues arise that deem it necessary to drop the class. This is the only class at this time that will allow a non-CVT drive system/ clutch assembly.

#### **ENGINE**

- 1. An engine OEM or aftermarket designed for snowmobile use and( used in conjunction with a CVT drive clutch is required). See Four stroke V-Twin class rules above for class exception. Upon review by the Competition Committee the Sea Doo four stroke watercraft engine will be approved power plant effective June 1, 2020.
- 2. There is a 2000 maximum c.c. limit on total engine volume, except Four stroke V-Twin naturally aspirated on Nitro-Methane. (See description in class weights above.) maximum for Four Stroke V-Twin will be 3700 cc.
- 3. Multiple power adders allowed.
- 4. Fuel injection systems are allowed.
- 5. Turbo Exhaust must be constructed in a manner that the exhaust outlet is not directed at the driver or competitor.
- 6. Exhaust system must fit within overall maximum length and width rules.

#### DRIVE

- 1. Any CVT type primary and secondary clutch may be used. Four Stroke V-Twin class CVT is not required.
- 2. Primary clutch and secondary clutch may be modified (no RPM limit)
- 3. Clutch cover must have full facial coverage and 360-degree elliptical coverage in the direction of clutch/belt travel (see illustration). Clutch cover must be .090-inch 6061T6 aluminum or equivalent steel material and be covered with six (6) inch belting. Other clutch cover materials not allowed. If the clutch cover is fastened to the existing belly pan, the area below the clutches (from front of cover to rear of cover and width of cover) must be covered with .090-inch 6061T6 aluminum or equivalent. If cover is .125 inch, 6061T6 aluminum or equivalent steel material, belting is recommended, but not mandatory. Clutch cover and related belting must be securely fastened.



- 4. Backside of clutches must be covered by a portion of the clutch cover or by a bulkhead of comparable material.
- 5. Custom clutch guards, clutch guards on purpose built chassis, and specialty chassis may use Carbon fiber, Kevlar, and other materials as reinforcement of standard clutch guard material and design. Newly designed clutch guards must exceed the specifications and limits established in standard clutch guard requirements, See specific disciplines for details. Each specific clutch guard must be submitted to ISR with digital pictures (both installed and uninstalled, at least four views) and a detailed explanation of design, design limitations, and method and type of fasteners used to affix the guard to the chassis. ISR may request an appointment to inspect on site.

#### SKI SUSPENSION AND STEERING

- 1. Ski suspension must have at least one hydraulic shock absorber on each side.
- 2. Minimum ski stance (center to center of ski runners) is 38 inches.

#### **SKIS & SKI RUNNERS**

Any ski allowed

#### **TRACK SUSPENSION**

1. Must be a minimum of 2 inches of remaining compression travel with driver on snowmobile.

#### **TRACK & TRACTION**

1. Any commercially available one-piece molded rubber track allowed. Track must be race designated by the molder of the track. No cleated tracks allowed. Track must be race designated by the molder of the track or the modifier of the track. Or/part numbers given to ISR from the track modifiers. The following tracks can no longer be used in Drag Race Competition (Tracks USA 174" 2-ply narrowed 9115M 9035M and 9036M tracks) (Hyper sports, and others.)

- 2. Track lug height may be trimmed to a minimum of ½ inch lug height. No other track trimming allowed.
- 3. Minimum track width is 10.0 inches.
- 4. Any traction device must not extend more than 2 inches, (2 inch) above the belt of the track.
- 5. For Snow drags only: Hooker plates may be used only with a stud designed for the original application. (1/4 -20 mounting.) Must be available and correspond to aftermarket OEM part numbers designed for Hooker plate application.

#### **FRAME & BODY**

- 1. Hood must have top and side cowling and must contain at least one thousand three hundred (1300) square inches.
- 2. A skid plate (belly pan) is required.

#### **BRAKES**

1. OUTLAW class sleds must have a twin opposed piston caliper braking system with a minimum 3/16 (.015-inch tolerance) inch thick, 7.0-inch minimum diameter brake disc, mounted on the drive axle. Any manufactured brake disc allowed, except no aluminum brake disc may be used.

#### **IGNITION & ELECTRICAL**

1. Any ignition may be used. Electrical stutter boxes launch control and traction control allowed.

# 2024 NITRO Event Fire Safety Requirements Rider Safety Requirements

- 1. Full coverage all-leather suit or SFI SPEC 40.1/2 full coverage suit. A toundation
- 2. Suits may be one-piece design or two-piece design that is joined with a zipper, at the waist.
- 3. Leather boots that completely cover the ankle with toe-area reinforcement.
- 4. Full-finger leather gloves are mandatory. Gloves must be Kevlar-lined or equipped with slider buttons and must have knuckle armor and palm reinforcement.
- 5. No exposed skin other than the eye port(s) in the head sock
- 6. Single Layer Nomex Balaclava Helmet Head Sock / ST SEC 3.3 SFI Foundation
- Full Face Snell SA2020 Helmet w/Nomex interior and full coverage. A list of certified helmets can be found here <a href="https://smf.org/cert">https://smf.org/cert</a>

# Nitro Snowmobile Requirements

1. All Supercharged and Turbocharged Nitromethane entries, using ANY percentage of nitromethane, must utilize a SFI SPEC 23.1 Burst panel.

Burst panel must be located between the supercharger outlet/discharge and the intake valve.

FI Noundation / Burst Panels (goodvibesracing.com)

- 2. All Screw Charger units and Roots supercharger units must utilize a SFI SPEC 14.2 restraint system OR the units must integrated into the chassis.
- 3. Contact STROUD Safety products@stroudsafety.com
- 4. SET Ballistic blankets are mandatory on ALL Nitro Screw Charger, Nitro Roots Blower, Nitro Pro Charger, and Nitro Turbo entries, regardless of the percentage of Nitromethane.
- 5. Contact STROUD Safety products@stroudsafety.com
- V-Twin Nitro entries require a SFI SPEC 46.1 engine restraint system Contact STROUD Safety
- 7. Por ALL electronic and mechanical fuel injection entries, all ignition ON/OFF and kill switches (including the tether kill switch) must also shut of the fuel.
- 8. Mechanical or pneumatic fuel shut off required.
- 9. Nitromethane is not allowed on any carbureted engines.

# **Event Fire Safety Requirements**

Fire Extinguishers Required. Starting Line: Qty-2 / UL 4A:80B:C Fire extinguishers
Finish Line (500ft): Qty-2 / UL 4A:80B:C Fire extinguishers
Shutdown (1000ft area): Safety vehicle (UTV w/tracks) will be equipped with a MINIMUM of Qty-2 / UL
4A:80B:C Fire extinguishers.

# **TECHNICAL DATA**

	Fuel Information		<b>C</b> '
	<b>VP C14</b>	VP METH	VP NITRO
DOT Transport Hazard class	3	3	CQ.
GHS Flammability	2	2	
Flash Point	-40F	44.5F	95F

Under GHS, all liquids with a flash point of not more than 199.4°F (93°C) are categorized as llammable liquids. Flammable liquids are further subdivided into categories:

- 1. Category 1 liquids have flash points below 73.4°F (23°C) and boiling points at o below 95°F (35°C).
- 2. Category 2 liquids have flashpoints below 73.4°F (23°C) and boiling points above 95°F (35°C).
- 3. Category 3 liquids have flashpoints at or above 73.4°F (23°C) and at or below 140°F (60°C). When Category 3 liquids with flash points at or above 100°F (37.8°C) are heated for use to within 30°F (16.7°C) of their flash point, they must be handled in accordance with the requirements for a Category 3 liquid with a flashpoint below 100°F (37.8°C).
- 4. Category 4 liquids have flash points above 140°F (60°C) and at or below 199.4°F (93°C). When Category 4 flammable liquids are heated for use to within 30°F (16.7°C) of their flash points, they must be handled in accordance with the requirements for a Category 3 liquid with a flashpoint at or above 100°F (37.8°C).
- 5. In addition, the new rules specify that when a liquid with a flash point greater than 199.4°F (93°C) is heated for use to within 30°F (16.7°C) of its flash point, it must be handled in accordance with the requirements for a Category 4 flammable liquid.

# PRO EXTREME 55

Pro Extreme 55 is a class designed to allow competition between extremely high horsepower sleds in various chassis designs.

This is a Gas only class VP Import, Q 16, may be used as an alternate fuel.

ICE course only, competition always will be limited to two sleds at one time, with a minimum of one lane separation between the sleds.

All rules for this class are subject to change at any time and without any grace period.

#### **PRO EXTREME 55 WEIGHTS**

	Max			
PRO EXTREME 55	СС	Grass	Ice	Snow
TURBO CHARGED/				
SUPERCHARGED		750	750	750
NITROUS		650	650	650
N/A UNDER 1050 CC		550	550	550
N/A OVER 1050 CC		600	600	600

#### LIMITATIONS SINGLE POWER ADDER ONLY.

Turbo 4-stroke - 55mm inducer Turbo 2-stroke - 61mm inducer Supercharged 4-stroke - 68mm inducer. Nitrous 2/4-stroke – Unlimited

#### **GENERAL SNOWMOBILE REQUIREMENTS**

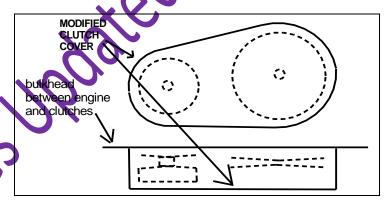
- 1. All snowmobiles competing in the Pro Extreme 55 class must comply with GENERAL RULES AND REGULATIONS SECTION.
- 2. Race Director shall have the authority to determine structural integrity.
- 3. Competition is open to any snowmobile, either production or one of a kind, experimental units, (which could include rear engine type units
- 4. Maximum overall length is 144 inches.

#### **ENGINE**

- 1. The engine must be from a stock -qualified snowmobile. The rules committee will approve the validity of all engines. Two cycle watercraft crankcase and crankshaft from a snowmobile manufacturer may be used.
- 2. There is a 2000 maximum c.c. limit on total engine volume.
- 3. Fuel injection systems are allowed.
- 4. Turbo Exhaust must be constructed in a manner that the exhaust outlet is not directed at the driver or competitor.
- 5. Maximum turbo inducer size is 55mm.
- 6. Exhaust system must fit within overall maximum length and width rules.
- 7. This is a gasoline only class, VP Import, VP Q16 are the only oxygenated fuels allowed

#### DRIVE

- 1. Any CVT type primary and secondary clutch may be used.
- 2. Primary clutch and secondary clutch may be modified (no RPM limit)
- 3. Clutch cover must have full facial coverage and 360-degree elliptical coverage in the direction of clutch/belt travel (see illustration). Clutch cover must be .090-inch 6061T6 aluminum or equivalent steel material and be covered with six (6) inch belting. Other clutch cover materials not allowed. If the clutch cover is fastened to the existing belly pan, the area below the clutches (from front of cover to rear of cover and width of cover) must be covered with .090-inch 6061T6 aluminum or equivalent. If cover is .125 inch, 6061T6 aluminum or equivalent steel material, belting is recommended, but not mandatory. Clutch cover and related belting must be securely fastened.



- 3. Backside of clutches must be covered by a portion of the clutch cover or by a bulkhead of comparable material.
- 4 Custom clutch guards, clutch guards on purpose-built chassis, and specialty chassis may use Carbon fiber, Kevlar, and other materials as reinforcement of standard clutch guard material and design. Newly designed clutch guards must exceed the specifications and limits established in standard clutch guard requirements, See specific disciplines for details. Each specific clutch guard must be submitted to ISR with digital pictures (both installed and uninstalled, at least four views) and a detailed explanation of design, design limitations, and method and type of fasteners used to affix the guard to the chassis. ISR may request an appointment to inspect on site.
- 5. Pro Extreme 55 class sleds must have a twin opposed piston caliper braking system with a minimum 3/16 (.015-inch tolerance) inch thick, 6.0-inch minimum diameter brake disc, mounted on the drive axle. Any manufactured brake disc allowed, except no aluminum brake disc may be used.

# SKI SUSPENSION AND STEERING

- 1. The front suspension must remain OEM design concept but may be changed in shape and appearance.
- 2. Material substitution is allowed. Replaced components acceptability for construction and strength will be at the discretion of the Technical Inspector. Inspection holes may be required to be bored into components at any time by Technical Inspectors. Technical Inspectors decision regarding acceptability is final. New, novel, or controversial designs are strongly suggested to be presented to technical approval, during the construction process for review. Construction concepts will remain proprietary to the builder but may be forwarded to select SMDG member with expertise in the area for advisory input.

#### **SKIS & SKI RUNNERS**

- 1. Any commercially available OEM appearing, or aftermarket ski may be used provided the original spring concept remains the same.
- 2. Minimum ski length is twenty (20) inches.
- 3. Functional suspension required.

#### TRACK SUSPENSION

1. Must be a minimum of 2 inches of remaining compression travel with driver on snowmobile. Functional suspension required.

#### **TRACK & TRACTION**

1. Any commercially available one-piece molded rubber track allowed. Track must be race designated by the molder of the track. No cleated tracks allowed. Track must be race designated by the molder of the track or the modifier of the track. Or part numbers given to ISR from the track modifiers. The following tracks can no longer be used in Drag Race Competition

(Tracks USA 174" 2-ply narrowed 9115M 9035M and 9036M tracks) (Hyper sports, and others.

- 2. Speed tracks and suspensions will be allowed.
- 3. Track lug height may be trimmed to a minimum of ½ inch lug height. No other track trimming allowed.
- 4. Minimum track width is 13.5 inches.
- 5. Any traction device must not extend more than ¾ inch, (.750 inch) above the highest point of the track or traction lug.

# FRAME & BOD

- 1. Snowmobile must resemble a stock model and profile. Minimum handlebar height 30" inches from ground to center of tube.
- 2. Aftermarket body panels and approved duplications of production bodies of any material will be permitted if OEM appearance for the declared model and brand is maintained. The hood and belly pan may be removable. One-piece hood with side panels and or air dams molded in are allowed. Hood must have top and side cowling and must contain at least one thousand three hundred (1300) square inches.
- 3. Front air dams allowed. Must be a minimum of 2 inches above the ground with front suspension fully compressed.
- 4. Windshields are required.
- 5. No additional bodywork that changes stock appearance allowed.
- 6. Ventilation openings may be covered.
- 7. Suspension side skirts are prohibited.
- 8. Aerodynamic devices, airfoils, and wings are prohibited.
- 9. Openings for component accessibility are allowed.
- 10. Cowl, or gas tank area must blend into seat
- 11. Seats other than OEM stock, are allowed. Stock seats may be cut down for lower profile. All seats must be a minimum of 2" in thickness.
- 12. Commercially available aftermarket and custom frames are allowed. Design and structural integrity are subject to technical inspection for safety and compliance to general rules section.
- 13. All aftermarket and custom frame components except braces, brackets, and gussets must be manufactured from 4130 chrome moly tubing and plate or 7075, 6061, aluminum plate. Use of stock OEM bulkhead allowed, and reinforcement of same is allowed.
- 14. Stock tunnels may be used with any commercially available aftermarket or custom front end.
- 15. Motor mounts and jackshafts may be changed from original location.
- 16. Snowmobiles using production or aftermarket tunnels that measure less than 1/8" or .125 inch in thickness shall have the one of the following:

  A. Additional sheet or sheets of metal to the tunnel to achieve .125 thickness. The sheet metal shall be the same width as the tunnel and shall extend from the rear of the tunnel to the horizontal centerline of the track drive axle. Tunnels 1/8-inch (.125) thick or thicker do not require this added sheet provided that the 1/8-inch (.125) tunnel extends to the horizontal centerline of the track drive axle.

OR

B. Two (2) tunnel protectors permanently fastened to the inside of the tunnel. Tunnel protectors must be minimum 1.500 inch tall (height) and may be either rectangular aluminum tube or machined aluminum. The tunnel protectors shall extend from the rear of the tunnel to the horizontal centerline of the track drive axle.

Tunnels that are 1/8-inch (.125) thick or thicker do not require additional protection.

# **IGNITION & ELECTRICAL**

- 1. Any ignition may be used. Electrical stutter boxes launch control and traction control allowed.
- 2. External electric starters are legal.

# GRASS-ICE DRAG SPECIALTY CLASS VELOCITY RACE MANAGEMENT VINTAGE RETRO MOD CLASS

# **VERIFICATION AND CONTROL**

L. Competitors in this class will conform to all rules cited in the Verification and Control section of ISR GRASS-ICE-SNOW rules.

#### **DRIVER PROTECTIVE EQUIPMENT**

Driver Safety equipment must conform to Driver Protective Equipment Section of current ISR GRASS ICE SNOW rules. See numbers 1 through 6 for required personal safety equipment.

#### **GENERAL COMPETITION**

Competitors in this class will conform to all rules listed in the General Competition Section.
 Please pay special attention to the "legal fuels" section.

# **GENERAL SNOWMOBILE RULES**

1. Competitors in this class will conform to all rules listed in the General Snowmobile Rules Section.

# **ENFORCEMENT, DISCIPLINE AND VIOLATIONS**

1. Competitors in this class will conform to all rules listed in the General Snown obile Rules Section.

#### RACE DIRECTOR AUTHORITY

1. Competitors in this class will conform to all rules listed in the Race Director Authority section of the General rules

# DRAG RACE COMPETITION

- 1. VINTAGE RETRO MOD is a specialty class offered by Velocity Race Management.
- 2. This class has specific exceptions to the Mod class rules to encourage new competitors to become involved in the sport and continue the racing of vintage modified sleds.

# **GENERAL COMPETITION AND SAFETY**

1. Competitors in this class will conform to all rules listed in the General Competition and Safety section of the General rules.

# **GENERAL SNOWMOBILE REQUIREMENTS**

1. Competitors in this class will conform to all rules listed in the General Snowmobile Requirements section of the General rules.

#### **Velocity Race Management Specialty Classes**

CLASS	MAX. DISPLACEMENT		MIN.WEIGHT
Vintage	Retro Mod 500	0-500 сс	500-Twin / 525 Triple
Vintage	Retro Mod 600	0-600 сс	525 Twin / 550 Triple
Vintage	Retro Mod 700	0-700 cc	575-Twin / 600-Triple
Vintage	Retro Mod 800	0-800 сс	600 Twin / 625 Triple
Vintage	Retro Mod Outlaw	Open cc.	650

Weights are combined rider, machine, and rider protection apparel.

These Class Rules will be frozen until 2025 to stabilize and stimulate growth.

# **CHASSIS**

- 1. The snowmobile chassis used must be an OEM production Leaf Spring Only vehicle. No aftermarket chassis allowed.
- 2. The chassis is allowed to be modified to accommodate safety and added performance requirements.
- 3. The machine must have a Vintage hood and belly pan. The hood and belly pan may be cut or trimmed to allow clearance of pipes.
- 4. Any ISR legal ski may be used.
- 3-inch minimum ground clearance must be maintained. This dimension is measured from the lowest portion of the belly pan to the racing surface.
- 6. Any handlebar may be used.
- 7. Any fuel tank may be used, must be securely fastened. No bungy cords, zip ties, or types of repair tape allowed. Rivets, bolts, and/or metal strapping are the required forms of fastening gas tank to tunnel or chassis.
- 8. Machines must have a seat. Any seat may be used. A minimum of 3.00" thick and 24.00" in length Seat must be fully secured to the tunnel
- 9. Must use hydraulic brakes. Brakes must be fully functional and operational.
- 10. Race vehicle must have two engine shut off, "kill" switches. A tether switch is required and must be always attached to the operator. The tether switch must be mounted to the chassis in a secure location. The additional switch may be toggle, push, key, or rocker style and can be mounted anywhere on the race vehicle.
- 11. Any OEM snowmobile chain case must be used. Chain case cover must be installed during all competition, practice, testing, and bye runs.
- 12. A snow flap is required, snow flap material and mounting fasteners must be of sufficient composition to retain debris discharge during competition. The snow flap must contact the racing surface with the driver in a seated position.
- 13. The tunnel must have a sheet of aluminum or steel the same thickness as the tunnel, permanently mounted to the top or bottom side of the original tunnel. The additional sheet must cover the full width of the tunnel from the front of the tunnel attachment point to the bulkhead to the rear close off panel.

#### ENGINE

- Naturally aspirated snowmobile engines of any year or manufacturer may be used. The engine brand need not match the chassis manufacturer.
- 2. Engines must be carbureted only. No Fuel injection, or Turbo charging allowed
- 3. Gasoline only.
- 4. Max. cylinder overbore allowed is 1% over listed class co
- 5. Components allowed to be modified: Cylinders, Heads, Pistons, Crankcase, Intake, Exhaust, Bearings.
- 6. Any ignition allowed.
- 7. No stutter button/stutter box/ launch control allowed.
- 8. Any exhaust allowed but must be effectively silenced. (See engine section in General Snowmobile Requirements)

# **CLUTCHES**

- 1. Any snowmobile type primary (drive) clutch allowed.
- 2. Any snowmobile type secondary (driven) clutch allowed.
- 3. Clutches allowed to be modified. No more than 15% of original filed clutch weight may be removed. (Example clutch is filed at 10.5 pounds with manufacturer. This would allow for 1.57 pounds to be removed. It is difficult to judge" structural integrity" on a rotating component. ISR understands that the term has been used in the past but recent findings in our SnowCross division indicate a weight limit is a more creditable tech point)
- 4. Must use an ISR approved clutch guard.

# **REAR SUSPENSION**

- 1. Any rear track suspension allowed.
- Functional suspension required.

#### TRACK AND TRACTION

- . Any commercial one-piece rubber snowmobile track is allowed. Maximum track length is 144 inches.
- Open or closed window tracks are allowed.
- 3. No alterations to the track except studding will be allowed. (No shaving, trimming, cutting.)
- 4. No "Kicker"/ "Hooker" style stud or stud mounts are allowed. No studs are allowed to be mounted directly under the slide rail.
- 5. Maximum stud height is ¾ inch (.750) above the highest lug/grouser of the track.

# **FACTORY MOD I & II**

Factory Mod I and II are combined class for specialty competition at various events. This class may or may not be offered at the promoter's discretion.

# **Factory Mod I WEIGHTS**

	This class may or may not be offered at the promoter's discretion.  Factory Mod I WEIGHTS			
<u> </u>	Max			
FACTORY MOD I	CC	Grass	Ice	Snow
		250	250	250
		SLED	SLED	SLED
440 OPEN MOD	440	ONLY	ONLY	ONLY
500 HEAVY MOD	500	500	500	500
600 PRO STOCK 2 CYL	600	565	565	565
600 PRO STOCK 3 CYL	600	600	600	600
600 PRO MOD 2 CYL	600	565	565	565
600 PRO MOD 3 CYL	600	600	600	600
700 IMP STOCK 2 CYL	700	675	675	675
700 IMP STOCK 3 CYL	700	700	700	700
800 IMP STOCK 2 CYL	800	695	695	695
800 IMPROVED STOCK 3 CYL	800	750	750	750

**Factory Mod II WEIGHTS** 

110.	Max			
FACTORY MOD II	СС	Grass	Ice	Snow
		250	250	250
		SLED	SLED	SLED
600 OPEN MOD	600	ONLY	ONLY	ONLY
700 PRO STOCK	700	550	550	550
700 HEAVY MOD	700	550	550	550
700 PRO MOD	700	550	550	550
800 PRO STOCK 2 CYL	800	570	570	570
800 PRO STOCK 3 CYL	800	650	650	650
800 PRO MOD 2 CYL	800	570	570	570
800 PRO MOD 3 CYL	800	650	650	650
1000 IMPROVED 2 CYL	1000	685	685	685
1000 IMPROVED 3 CYL	1000	750	750	750

# SUPER MOD

Super Mod is a class designed to allow competition between extremely high horsepower sleds in various chassis designs naturally aspirated.

ICE course only, will always limit the competition to two sleds at one time, with a minimum of one lane separation between the sleds. Ice course shutdown (run off) must be a minimum of 2000 feet.

Maximum course length is specified as 660 feet for Ice.

All rules for this class are subject to change at any time and without any grace period.

# GENERAL SNOWMOBILE REQUIREMENTS

- 1. All snowmobiles competing in the Super Mod class must comply with GENERAL RULES AND REGULATIONS SECTION.
- 2. Race Director shall have the authority to determine structural integrity.
- Race Director snall have the authority to determine structural integrity.
   Competition is open to any snowmobile, either production or one of a kind experimental unit, (which could include rear engine type units).
   Maximum overall length is 144 inches.
   No oxygenated fuels allowed.

  ENGINE TO WEIGHT MATRIX

#### **ENGINE TO WEIGHT MATRIX**

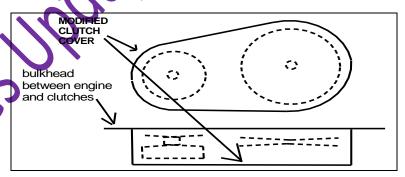
SUPER MOD							
	Max			C X			
ENGINE TO WEIGHT MATRIX	СС	Grass	Ice	Snow			
TWIN		550	550	550			
TRIPLE		600	600	600			
FOUR CYL		625	625	625			

#### **ENGINE**

- 1. The engine must be from a stock -qualified snowmobile. The rules committee w the validity of all engines. Watercraft crankcase and approv crankshaft from a snowmobile manufacturer may be used.
- 2. There is a 2000 maximum c.c. limit on total engine volume.
- 3. Fuel injection systems are allowed.
- 4. Exhaust must be constructed in a manner that the exhaust outlet is not at the driver or competitor. dire
- 5. Exhaust system must fit within overall maximum length and width rules.

#### DRIVE

- 1. Any CVT type primary and secondary clutch may be used.
- 2. Primary clutch and secondary clutch may be modified (no RPM limit)
- 3. Clutch cover must have full facial coverage and 360 degree elliptical coverage in the direction of clutch/belt travel (see illustration). Clutch cover must be .090-inch 6061T6 aluminum or equivalent steel material and be covered with six (6) inch belting. Other clutch cover materials not allowed. If the clutch cover is fastened to the existing belly pan, the area below the clutches (from front of cover to rear of cover and width of cover) must be covered with .090-inch 6061T6 aluminum or equivalent of cover is .125 inch, 6061T6 aluminum or equivalent steel material, belting is recommended, but not mandatory. Clutch cover and related belting must be securely fastened.



- clutches must be covered by a portion of the clutch cover or by a bulkhead of comparable material.
- sleds must have a twin opposed piston caliper braking system with a minimum 3/16 (.015-inch tolerance) inch thick, 6.0-inch minimum diameter brake disc, mounted on the drive axle. Any manufactured brake disc allowed, except no aluminum brake disc may be used.

#### SKI SUSPENSION AND STEERING

- 1. The front suspension must remain OEM design concept but may be changed in shape and appearance. Functional suspension required.
- 2. Material substitution is allowed. Replaced components acceptability for construction and strength will be at the discretion of the Technical Inspector. Inspection holes may be required to be bored into components at any time by Technical Inspectors. Technical Inspectors decision regarding acceptability is final. New, novel, or controversial designs are strongly suggested to be presented to technical approval, during the construction process for review. construction concepts will remain proprietary to the builder but may be forwarded to select SMDG members with expertise in the area for advisory input.

#### **SKIS & SKI RUNNERS**

- 1. Any commercially available OEM appearing, or aftermarket ski may be used provided the original spring concept remains the same.
- 2. Minimum ski length is twenty (20) inches.
- 3. Sled must have a minimum ride height of three (3) inches measured at the lowest point of the bulkhead/skid plate. Measurement points to be centered directly in front of the track drive area, (using the spindle centers to determine center point of bulkhead) and must retain 2 inches of remaining compression travel with driver on snowmobile.

#### TRACK SUSPENSION

#### 10. Functional suspension required.

#### **TRACK & TRACTION**

- Any commercially available one-piece molded rubber track allowed. Track must be race designated by the molder of the track. No cleated track allowed.
- 2. Speed tracks and suspensions will be allowed.
- 3. Track lug height may be trimmed to a minimum of ½ inch lug height. No other track trimming allowed.
- 4. Minimum track width is 13.5 inches.
- 6. Any traction device must not extend more than ¾ inch, (.750 inch) above the highest point of the track or traction lug.

# FRAME & BODY

- 1. Snowmobiles using production or aftermarket tunnels that measure less than 1/8 or .125 inch in thickness shall have ONE of the following:
  - A. Additional sheet or sheets of metal to the tunnel to achieve .125 thickness. The sheet metal shall be the same width as the tunnel and shall extend from the rear of the tunnel to the horizontal centerline of the track drive axle. Tunnels 1/8-inch (.125) thick or thicker do not require this added sheet provided that the 1/8-inch (.125) tunnel extends to the horizontal centerline of the track drive axle.

OR

B. Two (2) tunnel protectors permanently fastened to the inside of the tunnel. Tunnel protectors must be minimum 1.500 inch tall (height) and may be either rectangular aluminum tube or machined aluminum. The tunnel protectors shall extend from the rear of the tunnel to the horizontal centerline of the track drive axle.

Tunnels that are 1/8-inch (.125) thick or thicker do not require additional protection.

- 2. Hood must have top and side cowling and must contain at least one thousand three hundred (1300) square inches.
- 3. A skid plate (belly pan) is required.
- 4. Aftermarket chassis, and tunnels allowed.
- 5. Chassis reinforcement allowed.
- 6. No lightening holes can be drilled that alter the outward appearance for the model. QEM appearing body panels for the model must be used.
- 7. Seats other than OEM stock, are allowed, but must resemble production-based seats. Stock seats may be cut down for lower profile but must maintain stock configuration. All seats must be a minimum of 6" in thickness.

#### **IGNITION & ELECTRICAL**

- 1. Any ignition may be used. Electrical stutter boxes launch control and traction control allowed.
- 2. External electric starters are legal.

# **CLASSIC DRAG RULES**

CLASSIC IMPROVED STOCK 1983-1995

Sled list
Arctic Cat
El Tigre 6000
El Tigre EXT 530
EXT 580
ZR 580, 700
Wildcat 650, 700

Indy 600 Indy 650 RXL XLT XCR 600

**Polaris** 

Ski Doo 9700 Formula plus Formula Z Formula SS Formula STX Mach 1

Yamaha V Max 540 Exciter Exciter II V Max 600

# **CLASS IDENTIFICATION**

- 1. The maximum class displacement in cc's must be permanently displayed (minimum two (2) inches height) at the rear of the tunnel on both sides.
- 2. The driver's number must be displayed on both sides of the chassis along with class designation. These may be permanent or displayed on an approved decal.

### **ENGINE**

- 1. Engine components must be OEM for the model unless otherwise specified. May be modified internally, but engine must retain its complete external stock appearance and dimensions. Parts identification numbers must not be removed.
- 2. Cylinders must be OEM for the model. Must stay within OEM shell dimensions to include crevices, bulges, etc. No visible external changes allowed even if the area is hidden by another part or bracket. Number of cylinders must be OEM for the model. No external fastening devices allowed to secure or hold cylinders in place.
- 3. The cylinders may be raised to change port height. If a plate is used to raise cylinder height, the plate, including gaskets, cannot exceed 1/2 inch (0.50 inch) in thickness.

- 4. Engine may be bored up to class limit. A one percent (1%) overbore allowed. (EXAMPLE: 540cc may be bored to606cc, 670cc engine may be bored up to 707cc's).
- 5. Crankshaft and crankcase must be OEM for the model. OEM stroke must be maintained. No modification allowed to the external surfaces of the crankcase even if the area is hidden by another part or bracket.
- 6. The cylinder head may be modified internally including changing replaceable combustion chambers and machining out combustion chambers to use replaceable inserts.
- 7. Aftermarket heads allowed.
- 8. Engine components allowable for modification or replacement.

**Bearings** 

Rods (rod center to center must remain the same)

**Pistons** 

Piston pins

Rings

Gaskets

- 9. Carburetors, flanges and intake manifold must be OEM for the model. Internal modifications are allowed. Carburetor throat may be bored. Intake concept and location must remain OEM for the model.
- 10. On snowmobiles with OEM for the model Electronic Fuel Injection the throttle body, including the exterior, may not be modified for increased fuel flow. No welding of the throttle body allowed. The stock control module must be used. No changes for increased airflow allowed. Increasing the size of throttle body throat not allowed. OEM for the model throttle plate (butterfly) must be used without modification.
- 11. Except as noted, additional fuel delivery system or pressure charging is not allowed.
- 12. Internal and external modifications may be made to the airbox. The airbox may be removed. Air filters may be used.
- 13. Oil pumps, and tanks may be removed or disabled. Oil injector nozzles may be removed and plugged.
- 14. Flywheel harmonic balancer may not be removed.
- 15. Torque arms allowed.
- 16. Rigid motor mounts allowed.
- 17. OEM center to center distance (+ or 1/2'")
- 18. Cooling systems must be operational. May contain disconnects for cool down. Heat exchangers may be relocated, modified, or removed.
- 19. Any functionally silenced exhaust system allowed. A functionally silenced muffler/silencer must be installed and operational.
- 20. Exhaust outlet must exit body downward and rearward. Exhaust pipe must not extend more than 3 in. beyond body or chassis.

#### DRIV

- 1. Any primary and secondary clutch may be used. Roller secondary clutches allowed.
- 2. Primary clutch and secondary clutch may be modified (no RPM limit).
- 3. Jackshafts, of like material and weight, may be changed to accommodate a clutch change. No welding allowed on a jackshaft. Steel and chrome moly allowed. Titanium not allowed unless OEM for the model. OEM location of shaft must be maintained.
- 4. Any track drive sprocket and non-driving wheels allowed on the track drive axle. Unless specified, no changes in drive, frame, or suspension allowed to accept track drive sprockets.
- 5. Track drive axle and chain case must remain in QEM location for the model.
- 6. Brakes can be upgraded to hydraulic if caliper can bolt on to chain case in place of mechanical caliper, or if a like model used a hydraulic brake that chain case can be used.
- 7. Cover must be .090-inch 6061T6 aluminum or equivalent steel material and the outer perimeter be covered with 6-inch belting. Other clutch cover materials not allowed. If 0.125 aluminum or equivalent steel material is used, belting is recommended, but not required. Snowmobile with removable side panels may belt clutch cover to side panel to meet this requirement.
- 8. The clutch cover must be provided with a secure mounting plate. The mounting plate must cover the area below the clutches (from front of cover to rear of cover and width of cover) and be made of the same material as the cover. The cover must be securely fastened to the mounting plate and the mounting plate must be securely fastened to the belly pan.

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

- 1. Any aftermarket shock may be used but must resemble the production shock in approximate overall body length, body diameter, and mounting eye overall length.
- 2. Ski stance must be OEM for the model.
- 3. Must maintain a minimum of two (2) inches of remaining compression travel with driver on snowmobile. Functional Suspension required.
- 4. Any OEM handlebar for the brand may be used.

### **SKIS & SKI RUNNERS**

1. Aftermarket skis allowed. Skis must be commercially available and marketed through normal sales activity. Minimum aftermarket ski length must be 40 inches. Ski width may not be trimmed. Skis may not be interchanged between brands. Lower ski surface must remain OEM.

#### TRACK SUSPENSION

- 1. OEM for the model suspension must be used. Suspension may be moved up and down in the tunnel (limit 3 inches). OEM location must be maintained.
- 2. Must maintain two (2) inches of downward compression travel with driver on snowmobile. Functional suspension required.
- 3. Springs and shocks can be changed to aftermarket bolt on for the model and remain in OEM location.
- 4. Any size, material, and number of rear axle idler wheels allowed. Rear axle may be moved upward in the slide rails to accept larger rear idler wheels.

#### **TRACK & TRACTION**

- 1. Any commercially available one-piece molded rubber tracks up to 121 inches in length allowed. No cleated tracks allowed.
- 2. Open or Closed window is allowed.
- 3. No shaving or cutting of track. This includes width, wiper lugs or drive lugs.
- 4. No kicker plates.
- 5. Closed window tracks may not have studs under the slide rail area.
- 6. Stud length 3/4" maximum over track lug
- 7. Minimum lug height from the flat of the track is 0.50 inch.

#### **FRAME & BODY**

- 1. Any chassis alterations, additions, or removals, which alter stock appearance or dimensions are not allowed. Tunnel can be repaired but must maintain OEM length.
- 2. The OEM fuel tank must be the only tank that can be used for fuel supply. Oil injection tanks may not be used as a fuel tank.
- 3. Any OEM hood or side panels that maintain stock appearance for the make and model may be used.
- 4. Frame must have a sheet of metal the same thickness as the tunnel permanently fastened to the topside or underside of the tunnel. The sheet of metal shall be the same width as the tunnel and shall extend from the rear of the tunnel to the bulkhead.
- 5. The rear of the tunnel must be enclosed with material comparable in strength to 0.063 aluminum sheet. The tunnel enclosure is required to reduce the possibility of skis and driver's extremities entering the tunnel area. The enclosure shall cover the rear and both sides and extend forward a minimum of 14 inches. The bottom of the enclosure shall be no higher than one (1) inch above the center of the rear axle (with the driver in place). The rear of the enclosure shall be no further than 2.5 inches from the rear of the track.

# **IGNITION & ELECTRICAL**

- 1. Ignition must be OEM for the model, or aftermarket bolt on replacement
- 2. Fixed ignitions may be moved + or four (4) degrees.
- 3. No aftermarket device allowed which interrupts ignition for launch control or traction control.
- 4. Lighting coil must remain in place.
- 5. Tachometers, speedometers and/or heat gauges may be added or removed.
- 6. Open instrument holes must be closed.
- 7. Electrical wires/wire harnesses and instrument drive cables may be removed.
- 8. Headlight assembly may be removed (opening must be closed). Headlight consoles are not considered part of headlight assembly.

# CLASSIC PRO STOCK There will be 2 classes. 0-600cc Max cc 606cc 0-700cc Max cc 707cc **Sled list Arctic Cat** El Tigre 6000 El Tigre EXT 530 **EXT 580** ZR 580, 700 Wildcat 650, 700 **Polaris Indy 600** Indy 650 **RXL** XLT XCR 600 Formula plus Formula Z Formula SS ormula STX ummit 580, 670 Mach 1

Touring / 2 up, powder specials, XTC, SKS, long track, mountain model variants of the above are also allowed.

Yamaha V-Max 540 Exciter Exciter II Vmax 600

# GENERAL SNOWMOBILE REQUIREMENTS

- 1. Pro Stock snowmobiles must originate as ISR stock qualified snowmobiles.
- 2. OEM serial numbers are not required, but engine and frame must have unique identification numbers that identify the OEM model and year.
- 3. The OEM for the model frame, engine, seat, and fuel tank must be used. Unless otherwise specified, all parts and components including the hood, seat, engine, drive, and chassis must retain OEM stock appearance for the model.
- 1. The OEM for the model frame including bulkhead and tunnel must be used as structural members to mount the engine, drive components and suspension.
- 5. An OEM for the brand "like chassis available for the model year" may be substituted for the OEM chassis. "Like chassis" must have the same front suspension concept as the original chassis (i.e., leaf, trailing arm, "A" arm, or strut). When engine is installed in the "like chassis," the crankshaft must be in the OEM location for the chassis. The engine installation must conform to the engine location rules.
- 6. Any alterations allowed in Stock and Improved Stock classes are also allowed.

#### **CLASS IDENTIFICATION**

- 1. The maximum class displacement in cc's must be permanently displayed (minimum two (2) inches height) at the rear of the tunnel on both sides.
- 2. The driver's number must be displayed on both sides of the chassis along with class designation. These may be permanent or displayed on an approved decal.

#### **ENGINE**

- 1. Crankcase, cylinders and crankshaft must be from the same stock qualified model. Must retain the original number of cylinders.
- Crankcase may be modified internally provided the engine retains its complete external stock appearance and dimensions except as noted in these rules.
- 3. The only external modification allowed to the crankcase is to the cylinder mounting surface and must be covered by the OEM for the engine cylinder base gasket.
- 4. Crankshaft must be OEM for the model.
- 5. Crankshaft may be modified.
- 6. Stroke may be changed. Connecting rod length may be changed.
- 7. Cylinders must be OEM for the model and mounted in OEM location and orientation.
  - 8. Cylinder may be modified internally provided the engine retains its complete external stock appearance and dimensions except as noted in these rules.
  - 9. Cylinder overbore is limited to a 1% increase in displacement over the cc limit for the class.
  - 10. Cylinder may be bored up. 606cc Max for the 600cc Class. 707cc max for the 700cc class.
  - 11. OEM cylinder outer shell dimensions' modification must be within .020 inches (1/2mm) per side/.040 inches (1mm) overall of the OEM cylinder dimensions. Modification must be blended into original casting to retain OEM appearance.
  - 12. Cylinder height may be modified to change port height. If a plate is used to raise cylinder height, the plate, including gaskets, cannot exceed 1/2 (.500) inch.
  - 13. The cylinder head may be modified internally including changing replaceable combustion chambers and machining out combustion chambers to use replaceable inserts.
  - 14. Aftermarket heads allowed.
  - 15. Any carburetor may be used. Only one venturi allowed per cylinder
  - 16. Intake concept and location must remain OEM for the model.
  - 17. No turbo-chargers, super-chargers or nitrous allowed.
  - 18. Intake concept and location must remain OEM for the model engine with the exception that EFI models may be changed to carburetor induction.
  - 19. Other engine components allowable for modification or replacement:

**Bearings** 

Rods

Pistons, pins, and rings

Gackets

Bolt-on intake and exhaust flanges

Fuel pump

Engine mounts

Airboxes may be removed.

- 20. Engine must retain original cooling concept
- 21. Water pumps may be removed.
- 22. Radiators and ducting may be used but must not change OEM appearance. Radiator must not protrude beyond the belly pan and must be within 1/4 inch of the belly pan Maximum opening in belly pan is one hundred (100) square inches. Radiator must be functional.
- 22. Any functionally silenced exhaust system allowed. Exhaust outlet must not protrude more than three (3) inches beyond the chassis or hood configuration.
- 23. The following minimum standards for straight-thru silencers are required:
  - a. Inner pipe must have at least 15 holes per square inch. Minimum hole size 1/16 in. (Minimum 3/8 in. sound absorbing material around the entire circumference of inner pipe).
  - b. Inner pipe (perforated core) must contact sound absorbing material (fiber or steel wool packing).
  - c. Outer pipe must be at least ¾ in. larger than inner pipe.
  - d. Minimum silencer length 3 in.

# **DRIVE**

- 1. OEM center to center distance between crankshaft and jackshaft + or  $-\frac{1}{2}$  inch.
- 2. Any primary or secondary clutch may be used.
- 3. Jackshaft may be changed or modified (no welding on jackshaft).
- 4. Relocation of jackshaft and track drive axle not allowed.

- 5. Any track drive sprocket and non-driving wheels allowed on the track drive axle. Unless specified, no changes in drive, frame, or suspension allowed to accept track drive sprockets.
- 6. Drive reduction system must be OEM for the model.
- 7. Chain case / gear case modification is not allowed. Chain case / gear case must be functionally driving the snowmobile with the OEM for the model drive concept (i.e., chain, belt, or gear).
- 8. Any chain, belt, sprockets, and gears allowed for drive reduction system. No modification allowed to chain case for installation of these parts.
- 9. Brake assembly may be on either the jackshaft or the track drive axle.
- 10. Brake caliper may be either dual opposing piston or single piston type.
- 11. Minimum brake disk diameter is 7.0 inches. (If brake disk is mounted to track drive axle and a dual opposing piston caliper is used, the disminimum diameter is 6 inches.)
- 13. The belt guard must be separate of cowl configuration and cover clutch perimeter and faces down to center of clutch bolt or below.
- 14. Cover must be .090-inch 6061T6 aluminum or equivalent steel material and the outer perimeter be covered with 6-inch belting. Other clutch cover materials not allowed. If 0.125 aluminum or equivalent steel material is used, belting is recommended, but not required. Snowmobile with removable side panels may bolt clutch cover to side panel to meet this requirement.
- 15. The clutch cover must be provided with a secure mounting plate. The mounting plate must cover the area below the clutches (from front of cover to rear of cover and width of cover) and be made of the same material as the cover. The cover must be securely fastened to the mounting plate and the mounting plate must be securely fastened to the belly pan.

# **SKI SUSPENSION & STEERING**

- 1. Front suspension components including struts, arms, spindles, rod ends, spherical joints, tie rods, linkages, IFS walling arms and radius rods must remain OEM design concept but may be changed in shape and appearance. All must remain in the OEM location on the chassis.
- 2. Sway bar and links may be removed. If sway bar is disconnected, it must be removed.
- 3. Material substitution is allowed. Replaced components must be as strong as or stronger than QEM components.
- 4. Shock absorbers may be replaced.
- 5. Spindles may be strengthened or replaced with a stronger spindle. Spindle height must remain within 10% of the original OEM dimensions.
- 6. Ski widening devices allowed. No maximum ski stance width.
- 7. Handlebars, handlebar grips and controls may be modified.
- 8. Must be a minimum of 2 inches of remaining compression travel with driver on snownobile. (See FRAME & BODY for minimum ground clearance rules.) Functional suspension required.

#### SKIS AND SKI RUNNERS

- 1. Aftermarket ski may be used provided the original spring concept remains the same
  - 2. Minimum ski length is twenty (20) inches.

#### TRACK SUSPENSION

- 1. Any track suspension allowed. Max track length 136"
- 2. Material substitution is allowed. Replaced components must be as strong as or stronger than OEM components.
- 3. Shock absorbers may be replaced.
- 4. Outboard mounted shocks do not compromise OEM stock appearance.
- 5. Must be a minimum of 2 inches of remaining compression travel with driver on snowmobile. Functional suspension required.
- 6. All snowmobiles must use stab wheels installed on the suspension to prevent the slide rails from spearing the track
- 7. Dual suspension limiters are required in all classes.

# **TRACK & TRACTION**

- 1. Any commercially available one-piece molded rubber track allowed, up to 136" in length. No cleated tracks allowed.
- 3. Track lug height may be trimmed to a minimum of ½ inch lug height. No other track trimming allowed.
- 4. Holes for traction products must be a minimum distance of 5/8 inch from track edge or any other hole or opening in the track. A maximum of 2 holes allowed in each track segment outside of each slide rail. A maximum of 4 holes allowed in each track segment inside the slide rails. (A total of 8 holes per track segment.)

# **FRAME AND BODY**

- 1. The OEM for the model frame including bulkhead and tunnel must be used as structural members to mount the engine, drive components and suspension components.
- 2. Chassis reinforcement allowed. No lightening holes can be drilled that alter the outside appearance for the model.
- 3. Structural integrity must be maintained. Replaced components must be as strong as or stronger than OEM components. The Race / Tech Director shall have the authority to determine structural integrity.
- 4. Access openings for component accessibility will be allowed, but must be closed with original type materials, i.e., hinged clutch covers.
- 5. Frame must have a sheet of metal the same thickness as the tunnel permanently fastened to the topside or underside of the tunnel. The sheet of metal shall be the same width as the tunnel and shall extend from the rear of the tunnel to the bulkhead.
  - 6. Hood to belly pan molding must remain intact. The molding may be lightened if it does not alter the outside OEM appearance.

- 7. Seat must remain in OEM contour and be stock appearing. Seat may be lowered equally front to rear but must be at least six (6) inches thick (or OEM height if less than 6 inches) at its minimum dimension (seat height will be measured from the top of original tunnel to top of seat in rider less state. Measurements will be made at the lowest point of the seat. The rigid console cover may be lowered to blend into seat contour.
- 8. The outside gas tank shell must remain intact and in its OEM location. The fuel tank may be modified to accommodate a fuel cell. The fuel cap may be replaced with the fuel cell cap. All fuel must be contained in the OEM for the model fuel tank location. The use of a fuel cell used within the above rule will not compromise OEM appearance.
- 9. Front air dams allowed. Must be a minimum of 2 inches above the ground with front suspension totally compressed.
- 10. Except for front air dam (which requires 2-inch clearance), all other parts and components must maintain a minimum of 1-inch groups clearance with the suspension fully compressed.
- 11. Tunnel extension to fit a 136" track is allowed.
- 12. The rear of the tunnel must be enclosed with material comparable in strength to 0.063 aluminum sheet. The tunnel enclosure is required to reduce the possibility of skis and driver's extremities entering the tunnel area. The enclosure shall cover the rear and both sides and extend forward a minimum of 14 inches. The bottom of the enclosure shall be no higher than one (1) inch above the center of the rear axle (with the driver in place). The rear of the enclosure shall be no further than 2.5 inches from the rear of the track.

#### **IGNITION AND ELECTRICAL**

- 1. Any OEM ignition may be used.
- 2. Aftermarket/replacement coils, stators, cdi boxes that directly bolt on are allowed.
- 3. MSD, XDI or other programmable ignitions are not allowed.
- 4. Any instrumentation allowed. Tachometer, speedometer, or heat gauges may be added on emoved. Open instrument holes must be closed.
- 5. Electrical wiring may be removed.
- 6. Headlight assembly may be removed (opening must be closed). Headlight consoles are not considered part of headlight assembly.
- 7. No aftermarket device allowed which interrupts ignition for launch control or traction control

# CLASSIC SUPER STOCK

The intent of this class is to bring an affordable way to start drag racing, this is an entry level/starter class that takes a 1983-1995 sled with limited modifications and allows them to race. This is a trophy class only, \$15 entry fee + insurance. Promoter may put in bonus money.

#### ENGINE

- 1. Engine components must be OEM for the model unless otherwise specified. May be modified internally, but engine must retain its complete external stock appearance and dimensions. Parts identification numbers must not be removed.
- 2. Cylinders must be OEM for the model. Must remain within OEM shell dimensions to include crevices, bulges, etc. No visible external changes allowed even if the area is hidden by another part or bracket. Number of cylinders
- 3. The cylinders may be raised to change port height by gaskets only.
- 4. Engine may be bored up to class limit
- 5. Crankshaft and crankcase must be OEM for the model. OEM stroke must be maintained. No modification allowed to the external surfaces of the crankcase even if the area is hidden by another part or bracket.
- 6. Cylinder head(s) must be OEM for the model. The cylinder head may be modified. But not to include machining out combustion chambers to use replaceable inserts.
- 7. Engine components allowable for modification or replacement.
- 8. Bearings Rods (rod center to center must remain the same) Pistons, Piston pins, Rings, Gaskets.
- 9. Except as noted, additional fuel delivery system or pressure charging is not allowed.
- 10. Internal and external modifications may be made to the airbox. The airbox may be removed. Air filters may be used.
- 11. Any functionally silenced exhaust system.
- 12. Engine must remain in stock location and must use stock engine plate and mounts. Torque arms allowed.
- 13. Oil injection system may be removed.
- 14. On liquid cooled snowmobiles, except for quick disconnects and flow directional valves, the cooling circuits cannot be modified or removed. Thermostats may be removed. When the snowmobile is on the course the cooling fluid must flow unobstructed throughout the entire cooling system (no short circuiting)
- 15. Spark plugs and spark plug wires and connectors do not have to be OEM.

#### **IGNITION & ELECTRICAL**

- 1. Ignition must be OEM or aftermarket replacement for the model.
- 2. Fixed ignitions may be moved + or four (4) degrees.
- 3. No aftermarket device allowed which interrupts ignition for launch control or traction control unless OEM for the model.

- 4. Lighting coil must remain in place.
- 5. Tachometers, speedometers and/or heat gauges may be added or removed.
- 6. Open instrument holes must be closed.
- 7. Electrical wires/wire harnesses and instrument drive cables may be removed.
- 8. Headlight assembly may be removed (opening must be closed). Headlight consoles are not considered part of headlight assembly.
- 9. Glass lenses must be taped over with transparent clear tape.

# **TRACK AND TRACTION**

- 8. Up to 121" length tracks only.
- 9. OEM width for model or 15" wide replacement only.
- 10. 13.5" wide R tracks allowed up to 121" length. Open or Closed window is allowed.
- 11. No shaving or cutting of track. This includes width, lugs, or drive lugs.
- 12. No kicker plates.
- 13. No hooker studs allowed. Hooker plates can be welded to the track clip but must remain empty.
- 14. Closed window tracks may not have studs under the slide rail area.
- 15. Stud length ¾" maximum over track lug.
- 16. Any commercially available one-piece molded rubber track allowed. Track must be race designated by the molder of the track. No cleated tracks allowed. Unless specified, no modification to drive, frame or suspension allowed to install track.
- 17. Track must remain untouched (no trimming).
- 18. Minimum lug height from the flat of the track is 0.50 inch, the maximum lug height of a replacement track is 1 1/2 inch.
- 19. Snowmobile must maintain a minimum of twenty (20) inches of track length on the course surface when snowmobile is under full power.

# TRACK SUSPENSION

- 1. OEM for the model suspension must be used. Suspension may be moved up and down in the tunnel (limit 3 inches). OEM location must be maintained. Functional suspension required.
- 2. Must maintain two (2) inches of downward compression travel with driver on snowmobile.
- 3. Springs and shocks can be changed to aftermarket bolt on for the model and remain in OEM location.
- 4. Any size, material, and number of rear axle idler wheels allowed. Unless specified, no modification to chassis or suspension allowed to accept idler wheels. Rear axle may be moved upward in the slide rails to accept larger rear idler wheels.

# DRIVE

- 1. Any primary and secondary OEM clutch may be used. Roller secondary clutches allowed.
- 2. Primary clutch and secondary clutch may be modified (no RPM limit).
- 3. Jackshafts, of like material and weight, may be changed to accommodate a clutch change. No welding allowed on a jackshaft. Steel and chrome moly allowed. OEM location of shaft must be maintained.
- 4. Any plastic track drive sprocket and non-driving wheels allowed on the track drive axle. Unless specified, no changes in drive, frame, or suspension allowed to accept track drive sprockets.
- 5. Track drive axle and chain case must remain QEM for the model and remain in OEM location.

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

- 1. Ski suspension must be OEM for the model and remain in OEM location.
- 2. No lightweight components
- 3. Springs and shocks can be changed to aftermarket bolt on for the model. No air shocks, or air /oil shocks.
- 5. Ski stance must be OEM for the model.
- 6. Must maintain a minimum of two (2) inches of remaining compression travel with driver on snowmobile. Functional suspension required.
- 7. Any OEM handlebar for the brand may be used.

#### **SKIS & SKI RUNNERS**

1. Aftermarket skis allowed. Skis must be commercially available and marketed through normal sales activity. Minimum aftermarket ski length must be 40 inches. Ski width may not be trimmed. Skis may not be interchanged between brands. Lower ski surface must remain OEM.

# **FRAME & BODY**

- 1. Any chassis alterations, additions, or removals, which alter stock appearance or dimensions are not allowed. Tunnel can be repaired but must maintain OEM length.
- 2. The OEM fuel tank must be the only tank that can be used for fuel supply.

- 3. Any OEM hood or side panels that maintain stock appearance (as defined) for the make and model may be used. (Such as Indy 440 hood on an Indy
- 4. Brake system can be upgraded including master cylinder, caliper, and disk, must be OEM for the brand must be fully functional and mounted in the OEM location. (Such as upgrading a non-hydraulic brake system to a hydraulic system).
- 5. No aftermarket light weight hubs or discs allowed.

# JUNIOR DRAG RACING CLASSES

# Junior I (Ages 12 and 13)

#### Designated sleds.

- 1. May use any stock sled, maximum 500 cc, fan cooled or liquid.
- 2. 5000 RPM clutch engagement maximum limit.

# Junior II (Ages 14-15)

#### Designated sleds.

- 1. Sleds shall be a maximum of 600cc displacement Stock sled, or a maximum of 500 cc displacement Improved Stock, of a Max E.T. of 6.5 and above.
- 2. 5000 RPM clutch engagement maximum limit.

