

SNOW DRAG RACING

OFFICIAL SANCTIONS AND CLASSES

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 15 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. All Stock classes are open for Junior 16/17 who are advanced according to procedures in Junior Competition. For information, see Junior Novice and Junior Sections.

SPECIALITY CLASSES / SANCTIONS

1. All special sanctions and specialty classes must be approved in writing by ISR and the rules committee before competition.
2. 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.

SCORING

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

DRIVER POINT SYSTEM

1. A driver that comes to the line and takes the green flag/light will qualify for points if available to that driver.
2. In the finals, the drivers finishing behind a disqualified driver will move up to the next higher position.
3. Points shall be awarded as follows:

FINISHER	POINTS PER CLASS ENTRY	EXAMPLE (points for 30 class entries)
First	5	180 (5X30)
Second	4	120
Third	3	90
Fourth	2	60
Fifth	1	30

4. In Seniors' competition, the total points awarded will be based on the number of entries up to a maximum of 50.
5. In Women's competition, the total points awarded will be based on the number of entries up to a maximum of 20.
6. Points will be awarded in any class that has one or more entries.

7. Points will be awarded and tabulated by each affiliate (or group of affiliates). Points are non-transferable between affiliates unless an arrangement has been agreed to by the affiliates involved. Driver must be an affiliate member to receive high point awards.
8. Points tabulation for ISR Annual Drag Racing Championship invitations will end on the weekend before the race.
9. Point tabulation for circuit high point winners and class champions will end at the close of race season.
10. No points will be awarded at the International Championship race. All other rules and regulations for the International Championships will be set by the ISR Executive Drag Racing Committee.
11. One-event members will not receive points.

GENERAL COMPETITION AND SAFETY RULES

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.
3. It is mandatory that a separate clean out board be placed near the starting line.
4. A protective stand will be in place behind the track of the snowmobile when it is leaving the starting line.
5. 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.
6. 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.
7. 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.
8. Moving a running snowmobile on a stand is prohibited.
9. One (1) crewmember may accompany driver to starting line. At Masters events, with the permission of the Race Director, two (2) mechanics are allowed on the starting line.
10. 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.

11. 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.
12. 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.
13. 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 3/4 inch plywood (no chipboard). Additional clean out boards may be placed in the paddock area.
14. Cool down allowed in the hot pits for all classes.
15. Participant using external cooling system must use a catch pan to stop any coolant from leaking onto ice/ground when in use or being disconnected.

GENERAL SNOWMOBILE REQUIREMENTS

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.

IDENTIFICATION

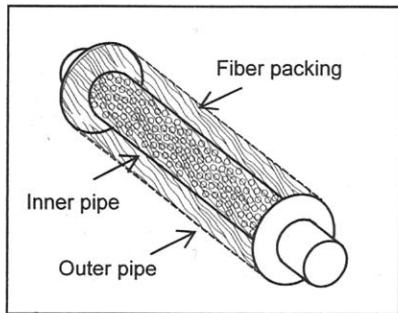
1. The maximum class displacement in cc's must be permanently displayed (minimum two (2) inches height) at the rear of the tunnel on both sides.

ENGINE

1. (Improved Stock, Pro Stock and Modified classes) 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).

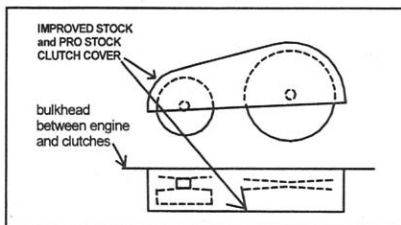
SNOW DRAG RACING

- b. Inner pipe (perforated core) must contact sound absorbing material (fiber or steel wool packing).
- c. Outer pipe must be at least 3/4 in. larger than inner pipe.
- d. Minimum silencer length 3 in.



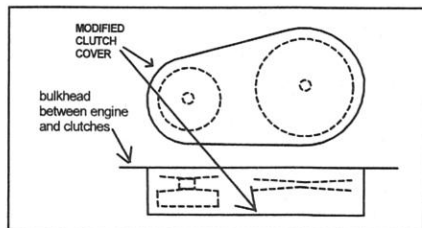
DRIVE

- 1. The snowmobile must be propelled by a variable ratio belt transmission.
- 2. (Improved Stock and Pro Stock) The clutch cover must be separate of cowl configuration and cover clutch perimeter and faces down to center of clutch bolt or below (see illustration). 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.



- 3. (Improved Stock, 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
- 4. (Heavy Mod and Open Mod) 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.



- 5. Backside of clutches must be covered by a portion of the clutch cover or by a bulkhead of comparable material.
- 6. Aluminum brake disks not allowed.

SKI SUSPENSION & STEERING

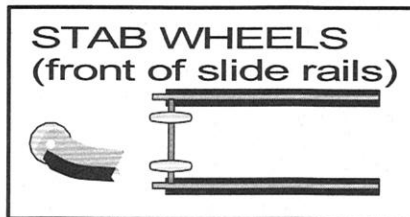
- 1. Limiter straps may be used on all suspensions in all classes.
- 2. All classes require a minimum amount of suspension travel. See section for specific required minimum.
- 3. Suspension travel to be measured vertically at the bumper. It is the driver's and/or crew's responsibility to demonstrate suspension travel.
- 4. (Pro Stock and Modified classes) Spindle minimum wall thickness is 0.120 inch; minimum outside diameter is 0.75 inch. Inspection hole required if wall thickness is not visible.

SKIS & SKI RUNNERS

- 1. (Pro-Stock and Modified) It is highly recommended, if a cutting edge is used on a ski, that no more than five inches of ninety (90) degree cutting edge be used.

TRACK SUSPENSION

- 1. Improved Stock, Pro Stock and Modified: All snowmobiles must use a device such as stab wheels installed on the suspension to prevent the slide rails from spearing the track (see illustration).



- 2. Dual suspension limiters are required in all classes. 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.
- 3. All classes require a minimum amount of suspension travel. See section for specific required minimum.
- 4. Suspension travel to be measured vertically at the bumper. It is the driver's and/or crew's responsibility to demonstrate suspension travel.

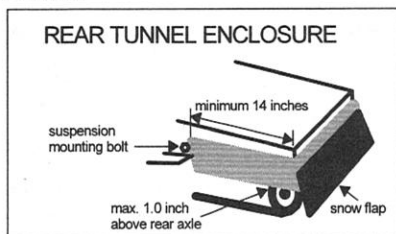
TRACK & TRACTION

- 1. (Improved, Pro Stock and all Modified) Track must be designated by the molder of the track for racing. It is recommended that the track be no more than 3 years old.
- 2. In Stock class, track width is as produced for the model (unless a designated optional track of different width is used). In all other classes, there is no minimum track width. All tracks must be commercially available. Track width must remain as produced by the molder of the track.
- 3. Tracks may not be reversed.
- 4. Track studs may be no more than 3/4 inches above the highest point of the track or the traction lug. (See diagram in Appendix.)
- 5. 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.
- 6. Except for under slide rails, all plates will be no greater than two and one quarter (2 1/4) inches in width and length. Plates welded onto track clips must be no longer or wider than track clip. Only one plate allowed per track clip. Only one traction point allowed per weld-on plate. Rubber between ends of track clip may be trimmed to allow welding on stud plate.
- 7. Cleated tracks are not allowed.
- 8. All tracks must be commercially available from OEM or molder of track. Unless otherwise specified, no modifications or changes allowed to track after production by molder of the track.

FRAME & BODY

- 1. The maximum tunnel width will not exceed twenty (20) inches and the track must be confined within the width of the tunnel.
- 2. 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.
- 3. (Modified Classes) Stirrups/pegs must be along side 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.
- 4. Dulled foot traction devices 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.
- 5. (Improved Stock, Pro Stock and Modified classes) 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 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 track.



STUTTER BOXES

1. No stutter boxes allowed unless otherwise specified.

IGNITION AND ELECTRICAL

1. The tether switch cord must be attached around the driver's right wrist. The cord must be no more than 24 inches long when fully extended (measured from the switch to the driver's wrist.) The tether switch may be relocated. The tether switch may not be mounted to any moving part of the steering mechanism.
2. Data acquisition and data acquisition systems allowed.

DRIVER RULES

1. Neck bracing highly recommended in all classes. Neck bracing can be mandatory at regional discretion.

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 Masters Drag events. Teardown is by protest only at Amateur Drag events, or at the discretion of the Race Director.

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.

STOCK SNOWMOBILE GENERAL REQUIREMENTS

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.

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

NOTICE: Weights are reviewed annually.

6. Stock alterations allowed in Oval Sprint racing for safety reasons are allowed.
7. Commercially available gasolines that are 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 the purpose of 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.
8. On snowmobiles with OEM electronic fuel injection, commercially available electronic control modules may be added to the OEM ECU for the purpose of increasing or decreasing fuel delivery only. The added module must be designed to plug directly into the OEM ECU and/or the OEM wire harness without modification.

NOTICE: This rule will be reviewed annually.

9. On snowmobiles equipped with electronic fuel injection, it is allowed to replace the non-adjustable fuel pressure regulator with any commercially available, mechanically adjustable fuel pressure regulator. (Unless OEM for the model, no electronically controlled fuel pressure regulators are allowed.) The regulator and mechanical adjustment device must be installed under the hood of the snowmobile and not be accessible to the driver while seated on the snowmobile.

10. 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.
11. No additional fuel pumps may be added to stock carbs.
12. 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.
13. Engine must retain OEM for the model cooling system.
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. OEM heat exchangers for the model located under the tunnel may be relocated any place on the top, side or under the tunnel and must remain functional.
16. Harmonic balancer may not be removed.
17. The complete OEM exhaust system must be used as furnished and filed by the manufacturer for the model.

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.
5. 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 model.
10. On 440cc Sno-cross race models, track drive sprockets may be changed to use a 2.52 inch pitch 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. No other brake components may be added.**

SKI SUSPENSION & STEERING

1. Any steel or titanium suspension springs allowed. OEM for the model design concept must be maintained.
2. Must maintain two (2) inches of remaining compression travel with driver on snowmobile.
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. Handle bar extensions are allowed. All ends must be plugged. (See diagram in GENERAL RULES AND REGULATIONS SECTION).