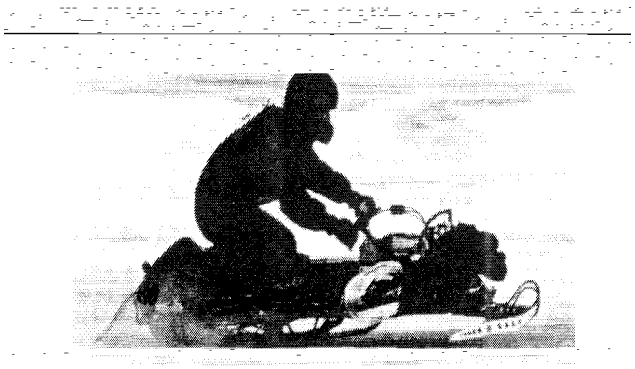
ILLINOIS VALLEY
WINTER SPORTS CLUB

of Marseilles, IL.

SNOWMOBILE SPEED RUN
CLASSES - RULES
AND GUIDELINES

rev. 12/08



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General Regulations Established By The Illinois Valley Winter Sports Club Race Organization

The Illinois Valley Winter Sports Club Racing organization is not I.S.R. sanctioned. The I.S.R. rules are used as a guideline to ensure fair and safe competition to all racers and spectators. The race format has been developed on 23 years of racing experience in Illinois and Wisconsin. The Illinois Valley Winter Sports Club Race Committee will settle all discrepancies in the race program. The Race Director will make the final determinations concerning all aspects of the race.

The Illinois Valley Winter Sports Club reserves the right to classify snowmobiles according to their specific level of performance in the interest of fair competition.

If you have any questions or comments, please let us know. We appreciate your help in making our racing program better.

SNOWMOBILING IS A PRIVILEGE, NOT A RIGHT,
SO DONT ABUSE IT!!!

EVENT REGULATIONS

The IVWSC has developed and published the speed run guidelines for the purpose of providing guidance in the conduct of IVWSC events.

Assumption of Risk

The participant agrees that by entering an event, the participant acknowledges that the event is safe and suitable for racing and the participant acknowledges that by participating in the event the participant may suffer bodily injury or death or loss or damage to property. The participant further acknowledges that the participant has voluntarily assumed the risk of such losses and waivers any claims for such loss against I.V.W.S.C., the I.V.W.S.C. event officials, the event sponsors, the race track operators and other participants, discharges such persons form responsibility for such losses and covenants not to sue such persons for such losses. All participants shall be required as a condition of participation to sign all required entry forms, including such releases as shall be required by I.V.W.S.C. insurance policies. For purposes of this Rulebook, the term "participant" shall include any person directly or indirectly associated with any vehicle which has been permitted to enter an event site for the purpose of competition, including but not limited to owners, drivers and crew members.

"Illinois Valley Winter Sports Club"
Supplements and Amendments

General Regulations established by the
Illinois Valley Winter Sports Club Race Organization

1. The snowmobile must be registered in the driver's name
2. A sled can only place once in a class
3. All snowmobiles will be only allowed to run in two classes per division.
4. The race course will be conspicuously marked and failure to comply may constitute disqualification and ejection.
5. Any non-compliance to the rules and regulations set forth to all the classes will be subject to disqualification.
6. **Drivers must be 18 years of age with proof of identification.**

Snowmobile Speed Run Guidelines

To be considered a snowmobile, the vehicle must be propelled by a track and steered by skies.

I. OFFICIAL CLASSES

1. **Amateur Trail Stock Classes**
   ATS 550 (0-550cc)
   ATS 600 (551-600cc)
   ATS 700 (601-700cc)
   ATS 800 (701-800cc)
   ATS 900 (801-900cc)
   ATS 1000 (901-1000cc)

2. **Classic Stock Classes (sled manufactured >15 yrs)**
   CS 440 (0-440cc)
   CS 550 (441-550cc)
   CS 650 (551-650cc)
   CS 651+ (651cc and up)

2. **Improved Stock Classes**
   I.S. 500 I.S.700 I.S. 900
   I.S 600 I.S.800 I.S. 1000

3. **Open Modified**
   OM 600 OM 800 OM 1000

4. **Open Fuel**
   0 -750 & 751 +

II. GENERAL COMPETITION RULES

NOTE: THESE RULES WILL APPLY TO ALL CLASSES UNLESS SO NOTED. ALL MEMBERS AND RACING PERSONNEL ARE DEEMED TO BE FULLY AWARE OF ALL RULES AND WILL BE EXPECTED TO FOLLOW AND ABIDE BY THEM.

A. RULE SUPPLEMENT

Rule supplements, additions or corrections may/shall be announced before the start of the race.

B. CLASS DIVISIONS

A machine will be allowed to race in its respective displacement, or designated performance class, and any larger displacement or performance class unless otherwise noted.

C. RACE AND RACE STARTING PROCEDURES

1. Machines may be pushed to the starting lines.
2. Starter will notify the driver when he can proceed on his run.
3. There shall be no change of drivers.
4. The driver must start the race with his feet on the running board, stirrups or foot pegs and the feet must remain there for the duration of the run.
5. Machines will not be raised on the starting line or staging lanes. Exceptions can be made by Race Director.
6. A protective stand will be in place behind the track of the machine when it is leaving the starting line.
7. Grooming of the start area will be at the discretion of the starter.
8. Race director may shorten the race for any reason of safety.
9. Any machine traveling 100 feet or more from the starting line, down track, will be considered as an attempt/run.

D. RACE RESTART PROCEDURE

1. The race Director may have a restart at his discretion. Race Director's decision is final.

E. GENERAL REGULATIONS

1. INJURED DRIVERS/DAMAGED MACHINE - An injured or otherwise incapacitated driver or damaged sled shall be prohibited from racing. The only exception is if in the Race Director's judgment, the driver or sled is determined not to be a danger to driver's self or any other competitor. The Race Director's decision is final.
2. DISCUSSION WITH RACE DIRECTOR - Drivers only will have discussions with the Race Director about protests, and driving complaints, etc. and may approach the Race Director during that day's event.
3. RACE FINISH - The finish line will be clearly marked and readily accessible.
4. CONTROL OF MACHINE DURING RACE - It is expressly forbidden to drive or push a snowmobile in a direction opposite that in which the event is being run. The sled may not leave the confines of the lane run-off or the return lane.

F. PIT AND PADDOCK/STAGING AREA

1. TUNE-UP of the engine will be in the proper area only. The tune-up area will be held on a flat course, completely free of obstructions, which provide adequate and safe run-off areas at the end, so competitors may slow down and exit safely.

2. SPEEDING - Reasonable speeds will be observed in the pit and paddock area.
3. WARM-UP STANDS - Snowmobile stands that catch and retain cleats and other items that are thrown by a track will be mandatory. They will be placed at the rear of a tunnel opening and within 12 inches of the track, whenever the rear of machine is raised to clean out the engine or track. This stand must always be used in the paddock and out area.

G. REGISTRATION-ENTRY REGULATIONS

1. Driver must have registered at race headquarters and signed a wavier before any runs are to be made.
2. No refunds of entry or other fees will be made at events after registration is closed. Only if and after the event is canceled or rescheduled by a ruling of the Race Director, will fees be returned.
3. The Race Director may cancel any class, restrict C.C. limits (Open Fuel only), or cancel the event, for reasons of safety regarding competitors or spectators and in such case shall decide the awards, if any.
4. Race Director may change the length of the race for any reasons of safety, but shall give drivers adequate notice in advance.

H. PRIZES AND AWARDS

1. A machine cannot place more than once in a class.

I. SLED/EQUIPMENT - GENERAL REQUIREMENTS AND REGULATIONS - ALL CLASSES. THESE GENERAL RULES APPLY TO ALL SNOWMOBILES THAT ARE ENTERING COMPETITION. ALL MEMBERS ARE REQUIRED TO BE FULLY AWARE OF THE FOLLOWING REGULATIONS AND ABIDE BY THEM.

1. ENGINES

1. Engine: All classes are limited to the use of snowmobile engines or engines that appear to be snowmobile engines as described in each class section. If the engine size is changed during an event it must be reported to the tech official. All engines must meet the specifications for the class they have entered. If an engine does not meet the class requirements, it is cause for disciplinary action by the Race Director.

2. Exhaust: All machines must be equipped with an exhaust system as specified by the class requirements. The exhaust must be directed away from the driver and fuel tanks.

3. Quick Cool Down: Participants using external cooling systems must use a catch pan to stop any coolant from leaking on to the ice or ground when in use or being disconnected.

4. Fuel: The use of any fuel other than gasoline, alcohol or nitrous oxide is strictly prohibited. No participant or crewmember shall posses power boosting additives or agents on the race premises. Aerosol cans of ether will be allowed for starting purposes. No participants will be allowed to carry such cans on the driver or machine during a run.

5. Fuel Systems: All fuel systems must meet the requirements of the class. All fuel tanks must have a pressure cap and be vented to the outside of the body, or have a built in check valve. Fuel lines must be free of obstructions by other machine components.

6. Throttle: An adequate return spring on the throttle is required.

7. Nitrous Oxide: Nitrous oxide is allowed in OPEN FUEL ONLY. See specific class requirements. The use of any agents other than nitrous oxide as part of or mixed with, this pressurized fuel is strictly prohibited.

2. DRIVE TRAIN
    1. Guards: Pulleys and exposed moving parts will be isolated from the participant and other competitors by shields capable of retaining all accidental explosions and component impacts. Integrity of protective shields shall be at the Race Directors discretion. No holes may be drilled in protective shields.

    2. Chain case: The chain must be completely enclosed on the top and sides, the bottom may be left open. A maximum of two (2) lubrication holes (maximum 3/4 inch diameter each) may be drilled in the approximate location of the sprockets on the outboard side of the case.

    3. Clutch: The clutch cover guard must be separate of the cowl configuration.

3. SUSPENSION & BRAKES

    1. Brakes: Brakes shall be operative at all times.

    2. Steering: All machines must be equipped with two (2) skis for steering.

4. SKIS & TRACK

    1. Track: The machine must be propelled by one track. The continuous track length must run parallel to the machine length and maintain twenty (20) inches of length on the course surface when the machine is under full power. Minimum track width is 11-1/4 inches, maximum width must not exceed 16 inches. A 1/8 inch variance in the minimum/maximum track(s) is allowed. No studs may be placed over part numbers. Track studs may not extend ¾" above highest point of track.

5. BODY

    1. Snow flap: A rear snow flap of sufficient material to restrain traction components if thrown from the track will be installed in a permanent manner and shall be held down so as to contain all debris, at all speeds. The snow flap must be in place.

    2. Seat: All machines in all classes must be equipped with an upholstered, padded seat that will adequately support the driver.

6. ELECTRICAL

    1. Battery: Battery box must be securely held in place and the positive terminal must be shielded.

    2. Kill Switch: All machines, in all classes, will have a handlebar mounted button (on/off) kill switch on the right side within thumb reach.

J. VERIFICATION AND CONTROL

Any entry is subject to inspection upon request by the race director.

Race Safety Inspection: All aspects of modification are contingent on safety inspection. The Race Director may remove any sled from competition that does not meet safety requirements.

Inspection Procedure-Post Race: Tear down is by protest only at the discretion of the Race Director.

Protests:

1. All formal protests must be made to the Race Director. The Race Director will determine validity of protests. When the official protest is made, tear down will not be complete until protest is satisfied or proven unwarranted.
2. There is no need for formal protests when driving infractions occur during an event. Reports of 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.
3. A protest must be called in the eyes of the Race Director, or he has the option not to accept it for action.
4. No protest will be accepted that refer to a Race Director's judgment or decision.
5. It shall not be possible to protest or appeal technical inspection equipment.
6. No protests will be accepted after fifteen (15) minutes following the completion of the final daily run.

K. SPEED RUN CLASS RULES

The intent of these classes is to establish races that all can compete in, at their level of personal and equipment ability. The class structure is organized in such a way as to enable as many manufactured snowmobiles as possible, a place to successfully compete. If class rules are not followed, the class shall be run under specialty classes. If an equipment change is not stated in the rules, consider the change not allowed.

Amateur trail stock - There will be six (6) classes offered. A Stock Snowmobile is a track driven, ski steered, piston or rotary piston engine powered snow vehicle that is manufactured in the required quantities and is so designed to meet specific specification limitations. All snowmobiles must comply with GENERAL EQUIPMENT REGULATIONS & the original OEM SPECIFICATIONS.

Amateur Trail Stock

ATS 550	(0-550cc)
ATS 600	(551-600cc)
ATS 700	(601-700cc)
ATS 800	(701-800cc)
ATS 900	(801-900cc)
ATS 1000	(901-1000cc)

1. ENGINE
   The only changes allowed for the amateur trail stock classes are listed in this section. No other changes or modifications are allowed.
   1. Engine: The snowmobile must have original OEM (or factory designated replacement) engine, carburetion, air box. Factory options are not allowed. No component of the engine may be altered, changed or enlarged from the engine manufacturer's original Stock specifications, nor may additional components be added to the engine.
   2. Cylinders: Maximum cylinder overbore for wear or cylinder repair cannot exceed .020 inches (1/2mm). Gaskets dimensions can be made by gasket adjustments.
   3. Carburetors: OEM carburetor slide valve and replacement jet options will be allowed.
   4. Fuel Injection: Fuel injection chip changes are allowed, external fuel jets allowed, fuel management control box/tools allowed.
   5. Ignition: OEM for the model ignition may be advance or retarded, CDI modules may be reprogrammed.
   6. Cooling: OEM heat exchangers for the model cannot be relocated and must remain functional.

2. DRIVE TRAIN
   1. Drive Belts: Drive belts do not necessarily have to be OEM equipment in stock classes.
   2. Clutch: Any optional internal clutch parts will be allowed, to include springs, weights, and helix. Clutch may be trued and balanced, but not noticeably lightened. Machining on clutches to accommodate springs and weights are not allowed.

3. Chaincase: Only steel replacement gears are allowed.

3. SUSPENSION & BRAKES
   1. Wheel kits: additional wheel kits are allowed.
   2. Slides/Hyfax: OEM type slide rail hyfax may be used as a replacement. Graphite replacement hyfax will be allowed.
      Slide rail hyfax may be drilled. Hyfax may not be removed.
   3. Steering: Handlebar extensions will be allowed. All ends must be plugged.

4. CHASSIS & FRAME
   1. No suspension alterations or restraints allowed.

5. SKIS & TRACK
   1. Track: OEM type track only, no speed tracks allowed.
   2. Track Lubrication System: Not allowed.
   3. Skis: Any aftermarket or OEM skis may be used but must retain the OEM length (i.e. "short" skis are not allowed). Plastic ski skins/boots are allowed.

6. BODY
   1. Windshield: Windshield and windshield molding may be removed.
   2. Snow flap: Snow flap must be in place.

7. ELECTRICAL
   1. Instruments: Stock snowmobiles will be allowed to use tachometers, speedometers, data logging equipment and heat gauges.

8. SUPPORT GROUP
   1. Tow vehicles: Stock sleds must move to the stage and start line under their own power. No tow vehicles will be allowed in stock classes.

Classic Stock - There will be four (4) classes offered and is restricted to snowmobiles manufactured greater than or equal to 15 years ago. All snowmobiles must comply with GENERAL EQUIPMENT REGULATIONS & the original OEM SPECIFICATIONS.

Classic Stock

CS 440	(0-440cc)
CS 550	(441-550cc)
CS 650	(551-650cc)
CS 651+	(651cc and up)

1. ENGINE
   The only changes allowed for the classic stock classes are listed in this section. No other changes or modifications are allowed.
   1. Engine: The snowmobile must have original OEM (or factory designated replacement) engine, carburetion, air box. Factory options are not allowed. No component of the engine may be altered, changed or enlarged from the engine manufacturer's original Stock specifications, nor may additional components be added to the engine.
   2. Cylinders: Maximum cylinder overbore for wear or cylinder repair cannot exceed .020 inches (1/2mm). Gaskets dimensions can be made by gasket adjustments.
   3. Carburetors: OEM carburetor slide valve and replacement jet options will be allowed.
   4. Fuel Injection: Fuel injection chip changes are allowed, external fuel jets allowed, fuel management control box/tools allowed.
   5. Ignition: OEM for the model ignition may be advance or retarded, CDI modules may be reprogrammed.

2. DRIVE TRAIN
    1. Drive Belts: Drive belts do not necessarily have to be OEM equipment in stock classes.
    2. Clutch: Any optional internal clutch parts will be allowed, to include springs, weights, and helix. Clutch may be trued and balanced, but not noticeably lightened. Machining on clutches to accommodate springs and weights are not allowed.

3. SUSPENSION & BRAKES
    1. Wheel kits: additional wheel kits are allowed.
    2. Slides/Hyfax: OEM type slide rail hyfax may be used as a replacement. Graphite replacement hyfax will be allowed.
       Slide rail hyfax may be drilled. Hyfax may not be removed.
    3. Steering: Handlebar extensions will be allowed. All ends must be plugged.

4. CHASSIS & FRAME
    1. <u>No suspension alterations or restraints allowed.</u>
    2. Two inches minimum travel on front and rear suspension

5. SKIS & TRACK
    1. Track: OEM type track only, no speed tracks allowed.
    2. Track Lubrication System: Not allowed.
    3. Skis: Any aftermarket or OEM skis may be used but must retain the OEM length (i.e. "short" skis are not allowed). Plastic ski skins/boots are allowed.

6. BODY
    1. Windshield: Windshield and windshield molding may be removed.
    2. Snow flap: Snow flap must be in place.

7. ELECTRICAL
    1. Instruments: Stock snowmobiles will be allowed to use tachometers, speedometers, data logging equipment and heat gauges.

8. SUPPORT GROUP
    1. Tow vehicles: Stock sleds must move to the stage and start line under their own power.
       No tow vehicles will be allowed in stock classes.

<u>Improved Stock</u> - There will be six (6) Improved Stock Classes. Machine movement will be Stock to Improved Stock. Sled must begin as a qualified stock snowmobile. All machines must comply with stock regulations unless otherwise specified. All sleds must comply with GENERAL EQUIPMENT REGULATIONS. Any alterations allowed in stock are allowed in improved stock.

Improved Stock Classes

I.S. 500	I.S. 700	I.S. 900
I.S 600	I.S. 800	I.S. 1000

1. ENGINE

    1. Engine: The snowmobile must have original OEM (or factory designated replacement) engine and carburetion. Factory options are not allowed. Engine components must retain original OEM part numbers, but may be modified, provided the engine retains its complete external Stock appearance. Engine components allowable for modification or replacement are bearings, rods, pistons, pins, rings, reeds, head inserts and gaskets. OEM stock must be maintained except for the 1000cc class. The rod center to center must retain the same except for 1000cc

class. Engine displacement may not exceed manufacturers filed specifications for stock. Maximum cylinder overbore for wear or cylinder repair cannot exceed .020 inches.

2. Crankcases: Crankcase may be modified but must retain complete external OEM dimensions and appearance.
3. Cylinders: Cylinders may be modified but must retain complete OEM shell dimensions to include crevices, budgets etc. 800 cc - 1000cc only - Cylinder modifications must be within .20 inches per side of the OEM cylinder outer shell dimensions. Modifications must blend into the original casting to retain OEM appearance.
4. Reed Blocks: Reed blocks may be changed (external plate may be thicker) if they do not change the outside dimensions of the cylinder or crankcase. No external modifications may be made to accommodate the reed block change.
5. Carburetors: Carburetors, flanges and intake manifold must be stock, but internal modifications are allowed. Intake concept and location must retain OEM for the model. 1000cc only - Any carburetor is allowed, bolt on flanges may be changed and flange may be internally modified. Carburetor boots may be changed. Intake concept and location must remain OEM for the model with no external modifications to crankcase or cylinder.
6. Exhaust System: Any functionally silenced exhaust allowed.
7. Ignition: Ignition must be OEM for the brand, and may be advanced or retarded. 1000cc only - Any ignition is allowed. A Pony Pac ignition system may be installed on four cylinder Yamaha engines, allowing a change in the firing order to 180 degrees.
8. Oil Injection: Oil injection systems may be removed. Delivery lines to the motor must be disconnected or plugged if they are not in use. Oil tanks are to remain in place.
9. Air box: Air boxes may be removed or replaced with commercially available air box.
10. Cooling System: Cooling systems must retain complete stock appearance and be fully operational, but may contain disconnects for cool down.
11. Crankshaft: 1000cc only – Crank shaft may be modified or replaced and crankshaft gears may be changed.

2. DRIVE TRAIN

1. Clutch: Stock OEM primary and secondary clutches may be modified (no RPM limit) or may be replaced with any stock OEM qualified primary or secondary clutches. Any optional clutch parts will be allowed to include springs, weights, and helixes. Clutch may be trued and balanced, but may not be noticeably lightened.
2. Drive Belts: Any drive belt is allowed.
3. Jackshaft: Jackshafts may be modified or replaced with jackshafts of like metal to accept a change in clutch.
4. Chain case: Any steel replacement gear is allowed.

3. SUSPENSION & BRAKES

1. Suspension: Suspensions may be limited by straps but must maintain 2 inches of travel (front & rear). Rear springs may be changed.
2. Slides/Hyfax: OEM type slide rail hyfax may be used as a replacement. Any replacement hyfax will be allowed. Slide rail hyfax may be drilled.
3. Steering: Handlebar extensions will be allowed. All ends must be plugged.

4. CHASSIS/FRAME

1. Chassis: Chassis must be OEM stock. Snowmobile chassis may be lowered to a minimum of 1.5 inches from the lowest part of the bulkhead to the track surface. Structural integrity must be maintained. Replacement of the front shocks is allowed with any OEM or commercially available shock. Skid plates may be added or removed. Foot pegs may be added to the running boards or tunnel, but must be free from contact with rotating components. Engine torque arm may be added.

5. SKIS & TRACK

    1. Track: Any Stock snowmobile may replace the track with a replacement track. These tracks are available from the manufacturers and a variety of aftermarket companies.
    2. Skis: Skis must retain 90% of the length and width of the original OEM ski for the model. Plastic ski skins/boots are allowed.

6. BODY

    1. Insulation: Insulation may be removed provided it does not alter the stock appearance. Screen kits may be added or removed. Hood vent openings may be covered from the inside of the hood but must maintain stock appearance.
    2. Snow flap: The rear snow flap must be in place.

Open Mod - Competition is open to any snowmobile, either production or one-of-a-kind experimental. This class will provide a place for new ideas and concepts, and a place for research and development. All sleds competing in Open Mod classes must comply with General Equipment Regulations.

OPEN MOD Classes

OM 600 OM 800 OM 1000

REQUIREMENTS & SPECIFICATIONS

1. ENGINE

    1. Engine: The engine and engine components are an engine and engine components manufactured for snowmobile use, unless otherwise specified by the class rules (this does not include outboard, motorcycle, aircraft, ATV, watercraft or automotive engines and engine components). The Race Rules Committee will approve the validity of all engines.
    2. Crankshaft: Any snowmobile crankshaft will be allowed.
    3. Cylinders: Any snowmobile cylinders will be allowed. The cc maximum is defined at .020 over the cc displacement for the class.
    4. Heads: Any snowmobile heads will be allowed.
    5. Exhaust: Any exhaust is allowed, with the exception of megaphone. Exhaust emission pipe must not protrude more than three (3) inches beyond the chassis or hood configuration.
    6. Throttle: An adequate return spring on the throttle is required. The throttle will be operated with a thumb mechanism located on the handlebar facing to the rear of the machine. No twist grips will be allowed.
    7. Fuel Injection: Any fuel injection will be allowed.
    8. Fuel System: There will be no pressure charging or pressurized fuel tanks allowed.
    9. Fuel: Gasoline only allowed.
    10. Ignition: Any ignition is allowed.

2. DRIVE TRAIN

    1. Guards: Pulleys and exposed moving parts will be isolated from the participant and other competitors by shields capable of retaining all accidental explosions and component impacts. Integrity of protective shields shall be at the Race Directors discretion. No holes may be drilled in protective shields.
    2. Chain case: The chain must be completely enclosed on the top and sides, the bottom may be left open. A maximum of two (2) lubrication holes (maximum 3/4 inch diameter each) may be drilled in the approximate location of the sprockets on the outboard side of the case.

3. Clutch: Any commercially available variable ratio, belt driven clutch will be allowed (any radical designs must be approved by race rules).

3. SUSPENSION & BRAKES

1. Suspension: Externally activated suspension systems will not be allowed.
   Suspension will have a minimum of one (1) inch of useable travel.
2. Brakes: All 500 cc and above machines must be equipped with hydraulic brakes.
   All 800 cc and above must have a six inch minimum diameter brake disc. Any manufactured brake disc may be milled or drilled in the original pad contact area, all pads inclusive. The disc pad contact surface must not be reduced more than 15% of the original pad contact surface area.
   Brake discs must be covered with a shield capable of retaining an accidental explosion a minimum of 1/8" T6 6061 aluminum.

4. CHASSIS/FRAME

1. Foot Pegs: Foot stirrups/foot pegs constructed of rigid materials may be installed. Stirrups/pegs must be along side of the tunnel and may not extend above the height of the tunnel or beyond the end of the tunnel.
   All machines must have a tunnel like material 4 inches wide and start one inch behind the foot peg and run along the body to the rear of the clutch guard on both sides of the tunnel to act as a running board.
2. Dimensions: Minimum length of the machine will be 67 inches. The measurement will be taken form the ski spindle bolt to the center of the rear axle.
   The maximum width of the machine will be 45 inches. The participants torso must sit forward of the center of the rear axle.
3. Track: The machine must be propelled by a single track. The continuous track length is to run parallel to the machine length and maintain 20 inches, in length of continuous surface traction on the course surface. Track surface must be in contact with the course surface when the machine is under a full power run. Minimum track width is 11 1/4 inches. A 1/8 inch minimum variance in the minimum track width requirement is allowed. Due to high failure rate, tracks with internal or external cleats will not be allowed in 440 cc and above. It is highly recommended that cleats not be used in all Open Mod classes.
4. Skis: Ski must be a minimum of 3/4 inch wide, three (3) inch diameter loop, four (4) inch height and a minimum length of twelve (12) inches (Skis confined within the hood are exempt from the height rule).

5. BODY

1. Tunnel: All machines in this class must have a 1/8 inch 6061 T6 aluminum sheet of metal that shall run the width and length of the tunnel; down over the front of the tunnel to the center line of the drive sprocket.
2. Snow flap: A rear snow flap of sufficient material to restrain traction components of thrown from the track will be installed in a permanent manner and shall be held down so as to contain all debris, at all speeds. The snow flap must overlap from outside tunnel to outside tunnel, one (1) inch outside the widest part of the rear tunnel opening. The snow flap must be in contact with the course surface when the rider is on the machine. The use of springs and/or elastic material for holding down and fastening snow flaps is not allowed. Material used in/as wheelie bars will not be considered a snow flap.
3. Seats: The machine must be equipped with a regulation seat. See General Equipment Regulations.

6. SUPPORT GROUP

    1. Tow Vehicle: Open Modified machines may be towed to the staging area with the proper tow vehicle.
    2. Crew Members: Open Modified participants are allowed crew members to assist at the starting line.

Open Fuel

There will be two Open Fuel class offered. All machines competing in this class must meet all requirements of this class. All sleds competing in Open Fuel must comply with General Equipment Regulations.

REQUIREMENTS & SPECIFICATIONS

1. ENGINE
    1. Engine: The engine and engine components are an engine manufactured for snowmobile use, unless otherwise specified by the class rules (this does not include outboard, motorcycle, aircraft, ATC, watercraft or automotive engines and engine components). The Race Rules Committee will approve the validity of all engines.
       The engine(s) must appear to be snowmobile engines.
    2. Crankcase: Any snowmobile crankcase will be allowed.
    3. Crankshaft: Any snowmobile crankshaft will be allowed.
    4. Cylinders: Any snowmobile cylinders will be allowed.
    5. Heads: Any snowmobile heads will be allowed.
    6. Fuel Injection: Any fuel injection will be allowed.
    7. Exhaust: Any exhaust is allowed. with the exception of megaphones. The exhaust system may not protrude more than three (3) inches beyond the chassis or hood configuration.
    8. Throttle: Twist grip throttles will be allowed. An adequate return spring on the throttle is required.
    9. Ignition: Any ignition allowed.

2. DRIVE TRAIN

    1. Clutch: The machine must be propelled by a variable ratio belt transmission.
       A maximum of one (1) snowmobile clutch is allowed.
       See clutch cover guard rule in section I.2.3.
    2. Guards: 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 the protective shields shall be at the Race Directors discretion. No holes may be drilled in the protective shields.
    3. Chain case: The chain must be completely enclosed on the top and sides, the bottom may be left open. A maximum of two (2) lubrication hole (3/4 inch diameter) each may be drilled in the approximate location of the sprockets on the outboard side of the case.

3. SUSPENSION & BRAKES

    1. Brakes: Machine brakes will be equipped with an adequate hydraulic brake system on the final drive axis. All 800cc and above must have a six inch minimum diameter brake disc. Any manufactured brake disc may be milled or drilled in the original pad contact area, all pads inclusive. The disc pad contact surface must not be reduced more than 15% of the original pad contact surface area.
    2. Track Suspension: Open Fuel machines must have a minimum of one (1) inches travel in useable track suspension. Externally activated suspension systems will not be allowed.

4. CHASSIS/FRAME

1. Dimensions: The minimum length is 72 inches, with the minimum length of the front spindle center to the center of the rear axis to be 67 inches.
   The maximum machine width is 50 inches.
   The minimum spindle/ski width must be 30 inches.
   The participants torso must sit forward of the center of the rear axis.
2. Axis: The track(s) must be driven by a single drive axis.

5. SKIS & TRACK

1. Track: The machine must be propelled by one track. The continuous track length must run parallel to the machine length and maintain twenty (20) inches of length on the course surface when the machine is under full power. Minimum track width is 11 1/4 inches, maximum width must not exceed 16 inches. A 1/8 inch variance in the minimum/maximum track(s) is allowed. Due to the high failure rate, tracks with internal, external cleats are not allowed.
2. Skis: Ski must be a minimum of 3/4 inch wide, three (3) inches diameter loop, four (4) inch height and a minimum length of 12 inches. Skis confined within the hood are exempt form the height rule.
3. Ski Suspension: Ski suspension must have a minimum of one (1) inch in useable travel.

6. BODY

1. Tunnel: A 1/8 inch 6061 T6 aluminum sheet of metal shall run the width and length of the tunnel down over the front of the tunnel to the center line of the drive sprocket.
2. Snow flap: A rear snow flap of sufficient material (6061 T6 aluminum 1/8 inch thickness) to retrain traction components if thrown from the track will be installed in a permanent manner and shall be held down so as to restrain all debris, at all speeds. The snow flap shall be as wide as the outside dimensions of the tunnel at the rear of the tunnel. The use of springs and/or elastic material for hold down of the snow flap is not acceptable.
3. Seat: All machines will be equipped with a regulation seat (see General Equipment Regulations).

7. SUPPORT GROUP

1. Crew Members: Open Fuel participants may bring crew members to the start line.
2. Tow Vehicle: Open Fuel machines may be towed to the start line, staging areas and in the pit areas.