SNOCROSS JUNIOR CLASSES

TRANSITION 8-12

SPECIAL NOTICE

ALL SLEDS UTILIZED IN THIS CLASS MUST BE NON-CURRENT, OR A MINIUMN OF (1) ONE MODEL YEAR OLD.

The rules committee may at any time during the racing season, review the restrictions of the designated models if a brand is dominating the class.

The following parameters must be adhered to:

1. This class is to be run as the only class on the racetrack. Designated sleds may be ran together.
2. The class is for drivers that are 8 years old and not yet 13 years old. (It is not open to younger or older drivers.)
3. The snowmobile models eligible must be designated by ISR and the Rules Committee.

Stock legal production 600 cc Super Stock race snowmobiles will be the format for Transition classes. These sleds will be developed with specific manufacturer based modifications and restrictions. The snowmobiles will be raced as produced with only the following changes.

1. This class will follow all the rules for the stock-based snow cross class.
2. Electronic control unit ECU will be reprogrammed with rev limit restrictions (rev limited to maximum 6000 RPM)
3. Restricted throttle kit not to allow more than 50% throttle opening must be installed designated throttle kit part numbers will be supplied by brand.
4. The exhaust valves will be blocked in the shut position.
5. Primary clutch engagement will be 3500 Max RPM. (measured with secondary Sheave movement)
6. Rider, running board blocks can be used.
1. No studs are allowed in this class.
2. 1 ¾" tracks are legal for all sleds.
3. The sleds listed below are also approved to continue to run in the class following the stock – based sno cross class rules and the limitations listed below.
4. Pre-Heat "hole shot" function must be disabled

2010 -2014 Arctic Cat 500 Sno Pro with approved performance rev limiting kit. Primary clutch engagement will be 4500 Max RPM. (measured with secondary Sheave movement)

2014-2018 4000 Series with approved performance rev limiting kit. Primary clutch engagement will be 4500 Max RPM. (measured with secondary Sheave movement)

Ski-Doo MXZ 600 -Limited Division

Ski-Doo MXZ TNT- Limited Division

2010-2014 MXZ 600 (Non HO) Sport and 2010-2012 MXZ (Non HO) TNT with approved performance limiting kit

JUNIOR NOVICE 10 -13 & GIRLS ONLY JR NOVICE 9 -

SPECIAL NOTICE

SLEDS UTILIZED IN THIS CLASS MUST BE NON-CURRENT, OR A MINIUMN OF (1) ONE MODEL YEAR OLD.

The rules committee may at any time during the racing season, review the restrictions of the designated models if a brand is dominating the class. Stock legal production 600 cc Super Stock race snowmobiles will be the format for Junior Novice classes. These sleds will be developed with specific manufacturer based modifications and restrictions. The snowmobiles will be raced as produced with only the following changes.

1. This class will follow all the rules for the stock-based snow cross class.
2. Electronic control unit ECU will be reprogrammed with rev limit restrictions (rev limited to maximum 6500 RPM)
3. Restricted throttle kit not to allow more than 50% throttle opening must be installed designated throttle kit part numbers will be supplied by brand.
4. The exhaust valves will be blocked in the shut position.
5. Primary clutch engagement will be 4000 Max RPM. (measured with secondary Sheave movement)
6. Rider, running board blocks can be used.
7. Studs are allowed in this class.
8. 1 ¾" tracks are legal for all sleds.
9. The sleds listed below are also approved to continue to run in the class following the stock – based sno cross class rules and the limitations listed below.
10. Pre-Heat "hole shot" function must be disabled

2010 -2014 Arctic Cat 500 Sno Pro with 50% throttle opening installed Primary clutch engagement will be 5000 Max RPM. (measured with secondary sheave movement)

2014-2019 4000 Series with 50% throttle opening installed. Primary clutch engagement will be 5000 Max RPM. (measured with secondary Sheave movement)

Ski-Doo MXZ 600 -Limited Division

Ski-Doo MXZ TNT- Limited Division

2010-2014 MXZ 600 (Non HO) Sport and 2010-2012 MXZ (Non HO) TNT with approved performance limiting kit

Performance Kits for 2009 – 2017 ARCTIC CAT ZR 6000 R SX

Junior 14-15 & 16-17:

Part #	Description
1705-359	50% Throttle Block Kit including Calibration tool

Junior Novice 10-13 Rules

Part #	Description
1705-359	50% Throttle Block Kit including Calibration tool
0708-664	Power valve Stop kit CDI box must be re-programed to limit Max Engine RPM to 6500

RPM's along with disabling the "HOT START" Function.
Please ship CDI box to Arctic Cat Race Dept. 17442 US HWY 59 NE, Thief River Falls, MN 56701 Please include prepaid return Postage along with proper shipping address.

CLASS RULES: 50% throttle block, 4000 Max clutch engagement RPM (no clutch calibration parts included)
"HOT START" function must be disabled; Power valves must be positively locked in the closed position with a MAX of 6500 Engine RPM's.

Transition 8-12 Rules

Part #	Description
1705-359	50% Throttle Block Kit including Calibration tool.
0708-664	Power Valve Stop Kit

CDI box must be re-programed to limit Max Engine RPM to 6000 RPM's along with disabling the "HOT START" Function.
Please ship CDI box to Arctic Cat Race Dept. 17442 US HWY 59 NE, Thief River Falls, MN 56701 Please include prepaid return Postage along with proper shipping address.

CLASS RULES: 50% throttle block, 3500 Max clutch engagement RPM (no clutch calibration parts included)
"HOT START" function must be disabled; Power valves must be positively locked in the closed position with a MAX of 6000 Engine RPM's.

Performance Kits For 2010-2014 500 ARCTIC CAT Sno Pro & 2015-2017 ZR 4000 RR

Transition 8-12,
50% throttle and 6500 MAX Engine REV Limit

Part #:	Description
0709-094	Includes Calibration Tool

ECU must be Re-programed for a 6500 MAX Engine RPM. Please ship CDI box to Arctic Cat Race Dept. 17442 US HWY 59 NE, Thief River Falls, MN 56701 Please include prepaid return Postage along with proper shipping address

Junior Novice 10-13,
50% Throttle Kit

Part #:	Description
0709-094	Includes Calibration Tool

To Down Load Arctic Cats Part # list Click Here

Performance Kits For 2008 – 2017 SKI-DOO MXZx 600 R Junior 14-15 & 16-17:

Order Throttle Block and Calibration Tool

Part #	Description
486010017	Calibration Tool, 2013 and older MXZx 600 RS
486014022	Calibration Tool, 2014 and newer MXZx 600 RS
486900170	50% Throttle Block

Junior Novice 10-13

Part #	Description
486016023	Junior Novice 10-13, 2013 and older MXZx 600 RS
486016024	Junior Novice 10-13, 2014 – 2015 MXZx 600 RS
486016025	Junior Novice 10-13, 2017 MXZx 600 RS Kit Contains: 6500 max RPM ECM, preheat "hole shot" function disabled 50% Throttle block RAVE block cap Calibration tool Clutch calibration parts Misc. Hardware & Instructions 4000 Max clutch engagement RPM

Transition 8-12

Part #	Description
486016020	**Transition 8-12,** 2013 and older MXZx 600 RS
486016021	**Transition 8-12,** 2014 - 2015 MXZx 600 RS
486016022	**Transition 8-12,** 2017 MXZx 600 RS Kit Contains: 6000 max RPM ECM, preheat "hole shot" function disabled 50% Throttle block RAVE block cap Calibration tool Clutch calibration parts Misc. Hardware & Instructions 3500 Max clutch engagement RPM

Performance kits for 2010 – 2017 MXZ 600 Sport & TNT (Non HO)

Kit Details Transition 8-12

Part #: 486014055

Kit Contains:
6200 max RPM ECM
50% Throttle block
RAVE block cap
Calibration tool
Misc. Hardware & Instructions

Kit Details Junior Novice 10-13

Part #: 486014058

Kit Contains:
50% Throttle block
RAVE block cap
Calibration tool
Misc. Hardware & Instructions

To Down Load Ski-Doo Part # list Click Here

2008-2016 POLARIS IQR 600 2017 600R

Junior 14-15 & 16-17

Part #	Description
Kit consists of:	

06162014 50% throttle block kit
50% throttle asm & calibration tool

Junior Novice 10-13

Part # **Description**
Kit consists of:
06162016 Jr Novice restriction kit 50% throttle asm & calibration tool
Exhaust valve block cap
Clutch weights/spring (4000 max engagement)
CDI box reflash (6500 rpm limiter/no Dragon)
Clutch weights/spring

Transition 8-12

Part # **Description**
Kit consists of:
06162017 Transition restriction kit 50% throttle asm & calibration tool
Exhaust valve block cap.
Clutch weights/spring (3500 max engagement)
CDI box reflash (6000 rpm limiter/no Dragon)

To Down Load Polaris Part # list Click Here

JUNIOR 14 - 15

1. This class will follow all the rules for the stock-based snow cross class.
2. Restricted throttle kit not to allow more than 50% throttle opening must be installed designated throttle kit part numbers will be supplied by brand.

JUNIOR ADVANCEMENT

WHEN AN ISR COMPETITOR REACHES THE AGE OF 14 YEARS AND QUALIFIES FOR JUNIOR COMPETITION, HE/SHE MAY BE ADVANCED UP TO THE NEXT LEVEL, BUT

ONLY AFTER FULLFILLING ALL REQUIREMENTS BELOW:

AFFILIATE RESPONSIBILITIES

1. Before an affiliated sanctioning body may advance Junior drivers, it must have a bona fide junior program.
2. The affiliate's board/driver classification committee is responsible for verifying a Junior's driving ability.
3. Junior competitors shall be required to perform practice laps/runs from time to time to allow race officials to observe their progress in learning the handling skills required to advance.
4. Junior advancement is at the discretion of the driver's classification committee and can be reviewed at any time. The committee has the authority to advance, demote or deny advancement to any driver. The decisions of the classification committee are final.
5. The affiliate board/driver classification committee will not advance drivers until all DRIVER/PARENTAL RESPONSIBILITIES have been fulfilled and all completed and signed documents are on file.

DRIVER / PARENTAL RESPONSIBILITIES

1. A Junior competitor must compete in at least one entire event in a class before becoming eligible for advancement.
2. Before a Junior may advance to a senior class, he/she must meet the Junior advancement requirements established by the affiliates board/driver advancement committee.
3. He/she must petition the affiliate's board, in writing, requesting that he/she be allowed to advance.
4. The request for advancement must be accompanied by all new consent and release forms (as specified above).
5. The request must be approved in writing by the affiliate board to advance.
6. Before advancing to a Pro Division class, the Junior must be at least 16 years of age.
7. Parents may request for their child to stay in a lower class if they feel the driver needs more experience to develop track and driving skills.

4 STROKE / 120 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.
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.
Once rules are abridged, the sanction is no longer in effect.
All 120/4 Stroke classes are 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.

ELIGIBLE DRIVERS

Stock 120: These are classes for 4-12-year-old drivers.
Champ 120: These are classes for drivers aged 6-12. All other technical rules apply.
At times, regional or national rules may apply, but in any case, competitors will not be younger than 4 years of age.

ELIGIBILE SNOWMOBILES
Arctic Cat Z 120, Z 120 Sno Pro
Bombardier Mini Z
Polaris XCR 120
Yamaha SRX 120

SNOW CROSS DIVISIONS
Speed Limited Snow Cross
Snow Cross Stock
Improved
Champ 120

REGIONAL SPECIALTY CLASSES
Open 206

1. The 206 Local Option OPEN 206 class combines the rules for Champ
2. Chassis and Drive with a spec engine rule. All chassis rules are the same as Champ 120.

Specialty Classes

1. Can be any 120/4 racing event that does not fall under any of the specific circuits or classes, but meets established ISR safety standards and qualifies for ISR insurance coverage.
2. All specialty classes must be approved by ISR and the Race Rules Committee.

GENERAL COMPETITION AND SAFETY

1. If a driver is off his/her sled after an accident involving two or more sleds, the race will be red flagged.
2. Driver entry into an event is open to any qualified individual. The sanctioning body has the authority to evaluate all drivers to determine their qualifications.
3. A driver must compete for a full year in Stock 120/4 Class or in Kitty Cat racing and be six years of age before competing in any of the other 120/4 classes.
4. In Champ classes, drivers must have at least one year experience in 120/4 classes and be at least 7 years old through 14 years old. Drivers who attain the age of 15 during the scheduled season may complete the season.
5. Drivers must not reach the age of 15 prior to published scheduled race season for the affiliate.
6. Both the owner and driver are responsible to ensure that their snowmobile and driver safety equipment conform to all the rules for the class in which they have entered. The applicable rules are published in the chapter, in the GENERAL RULES AND REGULATINS section and from time to time, in ISR bulletins. Any driver that does not meet the requirements listed will be subject to disqualification and forfeiture of any prizes or awards, plus eligibility for the next two (2) races.
7. Two (2) laps are recommended in heats and five (5) laps in the final heats. Regional variations to lap counts allowed.
8. For restarts, the Snowmobiles will be arranged in a staggered line at a 45° angle to the track starting from left and going to the right.
9. Mandatory tech inspection of first place sleds.
10. The Race Director and/or Tech Director have the authority to determine structural integrity.
11. While driver is on course no radio communication between driver and crew is allowed.

MANDATORY DRIVER SAFETY EQUIPMENT

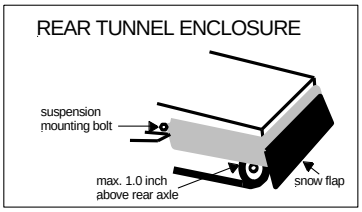
1. Helmets, upper body protection, shin guards, and above the ankle boots are required in all classes.
2. Mouth guards are mandatory in Sno-Cross and any other race over uneven terrain. Mouth guards must remain in place for the duration of the race.
3. **See GENERAL RULES AND REGULATIONS, DRIVER SAFETY EQUIPMENT for details.**

ENTRY FEES, PRIZES AND AWARDS

1. Recommended entry fees in 120/4 Racing - $15.00 in all classes.
2. Recommended awards – Trophies only (no prize money.

GENERAL SNOWMOBILE RULES

1. (All classes in Sno-cross/ Grass Oval) No traction products allowed.
2. Guide clips and/or track clips may be added to the track.
3. Carbide ski runners allowed.
4. Left side of handlebar may be straightened. Structural integrity must be maintained.
5. An extension may be added to the left handlebar (see illustration.) Maximum 3 inches wider, maximum 4 inches down. End must be capped.
6. Any separate front bumpers that extend away from the body must be padded.
7. In all oval and Ice Lemans 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. 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. (Not required in Sno-cross.)



8. Slide rail lubrication systems may be allowed, depending upon local, state, and/or federal laws and must utilize non=toxic and biodegradable lubricants.
9. Use of Heli-Coils are allowed in OEM location only.
10. In Stock and Improved Stock, snowmobile performance will be monitored and IKCR Rules Committee may adopt rules changes to insure fair competition among the various models.
11. All metal ski hoops must be padded.
12. On board slide rail lubrication systems allowed in all classes, depending upon local, state, and/or federal laws, lubrication must be non-toxic and biodegradable. Pulse line may be added to engine for slide lube pump purposes.
13. A tachometer may be installed.
14. Data acquisition and data acquisition systems allowed.
15. Taillight required.

STOCK CLASS RULES

GENERAL

1. The snowmobile must have original OEM for the model engine, hood, track, frame, seat, cowl, gas tank, carburetion, air-box, suspension and clutch supplied by the manufacturer for the model. 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. Engine RPM and vehicle speed may be monitored at the discretion of the Race Director.

ENGINE

1. Unless otherwise stipulated in this section, all governor linkage must be intact, in place and functional. Any governor spring may be used. Governor gear may be removed.
2. Replacing chain tensioner with commercially available aftermarket tensioner is allowed.
3. No component of the engine (included head, valves, and cam) may be altered, changed or enlarged from the engine manufacturer's original stock specifications nor may any additional components be added to the engine.
4. Maximum cylinder bore for wear or cylinder repair cannot exceed .020 inches (.50MM)
5. Stock OEM Pistons up .020 (.50MM) 0nly are allowed for replacement.
6. Blueprinting of engines is not allowed. No removal 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.
7. No changes in engine dimensions can be made by gasket adjustments.
8. Spark plugs do not necessarily have to be OEM stock. Sparkplugs may not be machined to seat deeper in the head, plug gaskets may not be altered, and plug indexing is not allowed.
9. No carburetor/air silencer changes allowed. Filter material may be added or removed.
10. Jetting changes are allowed.
11. Remote adjustable main jet system allowed.
12. Exhaust must be OEM as produced for the model. The OEM exhaust system must be used in its entirety. No internal or external modifications allowed. No welding allowed, even for repair. Muffler components and/or silencing material must be intact at all times.
13. To equalize performance between the manufacturer's' models the following changes are allowed.

a. Ski-Doo racers can change valve springs t Honda P/N 14751-ZE1-000

b. Arctic Cat 120 racers can upgrade to the 120 SnoPro kit consisting of valve springs and cam. (spring number 129-21-90700). The kit must be used in its entirety.

c. 2010 to current Arctic cat with Yamaha engines and Yamaha SRX 120 models can upgrade to the Yamaha/Arctic Cat performance kit consisting of camshaft, and valve springs, in conjunction with ISR Bulletin 12/13-009.

Valve Spring Criteria

A.

	Valve Spring Dimensions		
	Wire Dia.	Coil ins dia.	Max. Free Lght
Ski Doo	.078+-.002	.650+-.002	35.00 MM
A C 2009<	.090+-.002	.628+-.002	35.50 MM
AC/2010	.078+-.002	.630+-.002	26.60 MM
Polaris	.090+-.002	.652+-.002	30.50 MM

B.

	Seated hgt	Open hgt	Seated press.	Open press.
Ski Doo	0.875	0.613	20 lb	25 lb
Arctic Cat	0.955	0.735	26 lb	35 lb
AC 2009<	0.574	0.574	20 lb	24 lb
AC 2010	0.678	0.678	15 lb	21 lb
Polaris	0.850	0.625	27 lb	38 lb

Accuracy of this test will be based on the tester used and the measuring tool used for checking heights.

14. Polaris part # 0681-545 valve guide may be used on Arctic Cat 120 models. Valve guide may be shortened to the valve guide specifications for the Suzuki engine only.

SPECIAL NOTICE

ENGINE REV LIMITERS will be imposed on all Stock and IMPROVED STOCK 120 class snowmobiles.

To enhance the durability of the Honda GX120 engine used in production Ski Doo Mini 120 and Mini-Rev Snowmobile, a valve "rotator" Ski Doo part number H14781-ZE1-000 may be fitted on the intake valve.

DRIVE

1. Brake must be functional and operational at all times.
2. Clutch may be replaced with aftermarket clutch of the same basic centrifugal design.
3. Stock drive clutch engagement must be maintained.
4. No belt drives allowed.
5. Chain guard must be in place.
6. Sprocket ratio changes may be required by circuits in order to equalize performance between the various models.
7. 120 Sno X class Polaris gearing 420 ratio which is Stock for the sled. All Cat, Yam and Ski doo allowed to run 410 gear ratio. This can be achieved with #35 chain or #40/420 chain, tooth count on sprockets must equal ratio required.
8. Chain tensioner may be replaced with commercially available aftermarket tensioner.
9. Number 40/420 Drive chains allowed.

ISR Stock Class Gearing Info for #35 chain and Sprockets

4.10 ratio for Arctic Cat, Yamaha and Skidoo 120 and 4.20 ratio on Polaris 120 cannot be achieved with #35 chain sprocket combinations.

Listed are the only legal #35 chain sprockets combinations.
4.10 ratio will be 12- 50, 13-54, 14-58

4.20 ratio will be 12-51, 13-55

Or go to OEM chain

SKI SUSPENSION & STEERING

1. Front suspension must be OEM for the model.
2. Front suspension must remain in its stock location.
3. Ski widening devices are not allowed in Stock classes unless furnished as OEM and properly filed.
4. Suspension travel may be limited by means of tie down only. Suspension travel must be maintained. No rigid suspensions allowed.
5. Ski-Doo Mini z can modify the rubber front suspension puck's.
6. Handlebars must be intact at the start of each race day. Any commercially available handlebar allowed. May be altered to fit the driver. Open ends must be capped. Handlebars must be padded.

Column or post must remain in its OEM position. Grips may be modified or replaced.

SKIS & SKI RUNNERS

1. Ski must be OEM for the model and year or a commercially available aftermarket ski with a minimum overall length of 20 inches.
2. Ski suspension components must be OEM.
3. Ski loops must be added. Minimum 1-inch wide, minimum 5/16-inch-thick material must be used. Loop must have minimum diameter of 3 inches. (Nonmetallic loops only) Non Metallic is defined as: UHMW, Nylon, Acetal/Delrin type polymer materials only. If metallic loops are used refer to General Snowmobile rules sections for description and clarification.

TRACK SUSPENSION

1. The complete suspension must be used as furnished and filed by the manufacturer. No options allowed. Shocks must be OEM for the model. OEM for the model suspension mounting points must be used.
2. Seals may be removed from bearings in bogie wheels, rear idler wheels and/or rear idler sprockets.
3. Commercially available marginal snow wheels may be added to the slide rails. (Rear axle idler wheels must remain OEM for the model.)
4. Suspension travel may be limited by means of limit straps only. Suspension travel must be maintained. No rigid suspensions allowed.
5. Sno-cross and other rough terrain races – Stock 120/4 stroke rules apply with the exception that commercially available OEM or aftermarket shocks and springs allowed.
6. If the unit did not come with a rear shock you are allowed a shock upgrade kit for the rear suspension

TRACK & TRACTION

1. Any commercially available molded rubber track may be used. Track must fit within frame and suspension without modification to frame, or suspension. Track drivers matching the pitch of the track may be used. Track must be used as produced by the molder. Any hyfax allowed.
2. The OEM fixed upper carrier idlers may be reduced in dimension by 3/8 (.375) from the original for the model filed spec.
3. Track clips (guide clips) may added.

FOR TERRAIN, CROSS COUNTRY AND LEMANS RACING ONLY:

1. Specialized traction.
   a. Maximum of two points per track segment.
   b. No studs on outside belts.
   c. Studs must be unsharpened insert carbine only.
   d. Refer to Snow Cross traction rules for placement and type of stud.

IGNITION & ELECTRICAL

1. An ignition tether switch must be installed and functional.
2. Headlight and taillights must be OEM for the model.
3. OEM taillight must be operational /illuminated in its stock configuration.
4. An additional taillight must be illuminated as all times while on the racing surface.
5. Ignition and lighting systems must be OEM for the model. No modifications allowed.

FRAME & BODY

1. OEM hood must be maintained without modification. Hood may be painted any color except in Oval and Sno-cross, where orange on the snowmobile is not allowed.
2. Windshield may be removed, modified or replaced. Windshield must have safety trim.
3. All sharp edges must be padded.
4. Welding for repair will be allowed on the chassis. The repair must not alter the general design concept of the component or chassis.

IMPROVED STOCK RULES

1. Snowmobile must conform to Stock class rules unless stated otherwise in this section.

DRIVE

1. Gear ratio may be changed.
2. #35 chain may be used
3. Clutch may be replaced with aftermarket clutch of the same basic centrifugal design. (No variable ration systems allowed.) Brake band may be changed to fit clutch.

CHAMP CLASS

GENERAL

1. Modifications allowed in other 120/4-stroke classes are allowed in Champ

ENGINE

1. Any OEM 120 engine allowed. Modification and/or replacement of parts is limited to items listed in this section.
2. Engine components allowed for modification or change from OEM.
   a. Cam shaft – maximum .290 Inch Valve lift
   b. Valves and seats, and guides.

- Maximum intake valve diameter 25.2mm
- Maximum exhaust valve diameter 24.2mm
- Minim valve stem diameter 5.5mm (+- .15mm)

   c. Valve springs and retainers
   d. Tappets and push rods
   e. Governors may be removed.
   f. Connecting rod.
   g. Carburetor insulator block may be modified, but must maintain stock thickness dimension.
   h. Rocker Arm Pivot Studs and pivots.

Engine overbore may not exceed .020" (0.50mm) of standard bore size for the model.

3. Engine stroke must be stock as manufacturers filed specifications.
4. Engine components allowed to be modified but must begin as OEM for engine model.
   a. Bearings
   b. Crankshaft
   c. Piston and rings
   d. Gaskets
   e. Cylinder head And intake manifold
   f. Cylinder
   g. Crankcase
   h. Rocker arms
   i. Intake Manifold
   j. Fan Shroud
   k. Carburetor insulator block may be modified, but must maintain stock thickness dimension.
   l. Rocker Arm Stud
5. Carburetor may be bored and modified, bust must begin as OEM supplied for the engine's model. A velocity Stack may be added to the intake side of carburetor.
6. A snowmobile type diaphragm fuel pump may be added. A pulse fitting may be added to the intake tract to be used to operate the diaphragm fuel pump.
7. The exhaust system may be modified or replaced. The exhaust system must be functionally silenced. 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 1/6 in. (Minim 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 inch larger than inner pipe.
   d. Minimum silencer length 3 inches.
8. Outlet pipe must point downward and cannot protrude beyond machine width.
9. Removal of recoil mechanism and starter cup to use 12-volt remote electric starter is allowed. The recoil cover must be maintained. A 1.5-inch hole may be drilled in recoil cover to insert starter drive.
10. Valve cover may be modified to stabilize rocker arm stud. Stud girdles may be added. Breather fitting may also be added.

DRIVE

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

SKI SUSPENSION AND STEERING

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

SKI AND SKI RUNNER

1. Skis may be changed to commercially available aftermarket skis.
   a. Minimum length for Sno-cross is 20 inches.
2. Ski loop must conform to GENERAL RULES AND REGULATIONS.
3. Ski runners must meet competition and safety requirements for the type of racing (i.e. Oval or Sno-cross).

TRACK SUSPENSION

1. Track suspension may be altered, relocated or replaced. Structural integrity must be maintained.
2. Suspension must maintain a minimum of 2 inches of useable, vertical travel with the driver seated.
3. Track and track suspension must fit and be mounted within the confines of the tunnel.
4. Slide rail lubrication systems may be allowed, depending upon local, state, and/or federal laws and must utilize non=toxic and biodegradable lubricants.

TRACK AND TRACTION

1. Track must conform to Stock class rules.
2. Track may not be reversed.
3. Traction control devices must conform to rules in Stock class.

FRAME AND BODY

1. Snowmobile length must not exceed OEM for the model length by more than 2 inches (ski loop to rear of tunnel).
2. Overall body width must be within 2 inches of OEM for the model body width.
3. Bumpers must be padded (no sharp edges exposed).
4. Snow flap must be touching ice with driver aboard.
5. Belly pan and hood may be replaced. Belly pan and hood are required components.
6. Bulkhead may be modified or replaced: it must remain within 1 inch of the length and 1 inch of the width of the OEM bulkhead.
7. Tunnel may be modified or replaced using aluminum material
8. only. Material must be a minimum of .062" thick.

IGNITION & ELECTRICAL

1. Ignition coil must be OEM for model. Flywheel must be replaced with an aftermarket billet aluminum flywheel designed for the application. Lighting coil may be removed.
2. Taillight must be illuminated at all times while on the racing surface, whether the engine is running or not.

SEMI PRO 206

GENERAL

1. The 206 Local Option Semi Pro class combines the rules for Stock Chassis and Drive with a spec engine rule. All chassis rules are the same as 120 STOCK CLASS.
2. Snowmobile must be an ISR designated 120/4-stroke model that complies with the GENERAL RULES AND REULATIONS section.
3. Unless otherwise specified, 120/4 Stroke Stock rules apply.
4. Externally adjustable main jet allowed.
5. Final drive track drivers can be replaced. OEM number of teeth must be maintained.

AGE LIMITS

1. Competitors must be 6 years of age. Drivers must have one year's experience to enter this class.

ENGINE

Refer to LO 206 ENGINE SECTION

DRIVE

1. Stock 120/4 stroke rules apply.
2. 10/32 gear sets will be allowed
3. Final drive shaft may be changed but must be same material type (steel to steel) and bearing dimension as OEM.

SKI SUSPENSION AND STEERING

1. Sno-cross and other rough terrain races – Stock 120/4 stroke rules apply with the exception that commercially available OEM or aftermarket shocks and springs allowed.
2. If the unit did not come with a rear shock you are allowed a shock upgrade kit for the rear suspension

PRO 206

GENERAL

1. The 206 Local Option Pro class combines the rules for 120 racing with a spec engine rule. All chassis rules are the same as 120 STOCK CLASS.
2. Snowmobile must be an ISR designated 120/4-stroke model that complies with the GENERAL RULES AND REGULATIONS section.
3. Unless otherwise specified, 120/4 Stroke Stock rules apply
4. Externally adjustable main jets allowed.
5. Final drive track drivers can be replaced. OEM number of teeth and diameter must be maintained.

AGE LIMITS

1. Competitors must be 7 years of age with one year of driving experience. Drivers reaching 14 years of age during the season may finish the season in that class.

ENGINE

Refer to LO 206 ENGINE SECTION

DRIVE

1. Gear ratio may be changed.
2. #35 chain may be used
3. Clutch may be replaced with aftermarket clutch of the same basic centrifugal design. (No variable ration systems allowed.) Brake band may be changed to fit clutch.

SKI SUSPENSION AND STEERING

1. Sno-cross and other rough terrain races – Stock 120/4 stroke rules apply with the exception that commercially available OEM or aftermarket shocks and springs allowed.
1. If the unit did not come with a rear shock you are allowed a shock upgrade kit for the rear suspension.

SPEED LIMITED CLASSES

GENERAL

1. This is an alternative means of conducting 120/4 stroke races that required that all competitor govern the speed of their snowmobiles according to the class rules.
2. A test course should be provided which will allow competitors to check the maximum speed of their sled before the event. (It is recommended that the speed be displayed on a large visual display.)
3. A radar gun or other device will be used at the fastest portion of the track during the races. (It is recommended that the speed be displayed on a large visual display.)
4. Recommended classes: Class One - 15 mph, Drivers aged 4 through 5. Class Two - 18 mph, Drivers aged 6 through 12.
5. There must be no class speed more than 18 mph.
6. To insure safe competition, the Race Director must evaluate the course and the class speed limits and make changes as necessary.
7. Violators of the class speed limit will be reclassified to last place finishing position.
8. Driver safety equipment, sled equipment and course requirements from the 120/4 STROKE RACING section apply.
9. A snowmobile and driver safety inspection will be conducted before racing. Post-race technical inspection will be conducted in the event of a protest only.

SNOWMOBILE REQUIREMENTS

1. Snowmobiles must conform to the rules of the Improved Stock Class for 120/4 Stroke Racing

COURSE REQUIREMENTS

SNO-CROSS

1. Refer to Sno-Cross track layout in the Appendix.
2. Course width and length may be adjusted to suit the size and performance of the 120/4 sleds.
3. Course safety must no be compromised.
4. The track must have a 25 foot (minimum) spectator safety buffer zone and barrier.

200 DIVISION

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.
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.
Once rules are abridged, the sanction is no longer in effect.
All 200 DIVISION classes are 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.

ELIGIBLE DRIVERS
SNOWCROSS
See Matrix for specific ages for competition.

ELIGIBILE SNOWMOBILES

Arctic Cat ZR 200
Yamaha Sno-Scoot

200 CLASSES
SNOWCROSS DIVISIONS

Stock
Improved Stock

AGE LIMITS

STOCK 6-12

IMPROVED STOCK 7-16

STOCK CLASS

1. The snowmobile must have original OEM for the model engine, hood, track, frame, seat, cowl, gas tank, carburetion, air-box, suspension and clutch supplied by the manufacturer for the model. 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. Engine RPM and vehicle speed may be monitored at the discretion of the Race Director.

ENGINE

1. Unless otherwise stipulated in this section, all governor linkage must be intact, in place and functional. Factory 6000 rpm rev limiter must be intact and functional.
2. No component of the engine (included head, valves, and cam) may be altered, changed or enlarged from the engine manufacturer's original stock specifications nor may any additional components be added to the engine.
3. Maximum cylinder bore for wear or cylinder repair cannot exceed .020 inches (.50MM
4. Stock OEM Pistons up .020 (.50MM) Only are allowed for replacement.
5. Blueprinting of engines is not allowed. No removal 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.
6. No changes in engine dimensions can be made by gasket adjustments.
7. Spark plugs do not necessarily have to be OEM stock. Sparkplugs may not be machined to seat deeper in the head, plug gaskets may not be altered, and plug indexing is not allowed
8. No carburetor/air silencer changes allowed. Filter material may be added or removed.
9. Jetting changes are allowed.
10. Remote adjustable main jet system allowed.
11. Exhaust must be OEM as produced for the model. The OEM exhaust system must be used in its entirety. No internal or external modifications allowed. No welding allowed, even for repair. Muffler components and/or silencing material must be intact always. Wrapping of the pipe is not allowed.
13. **Electric start models may have the electric starter motor removed.**
    a. The on board battery for the electric start may be removed.
    b. The standard recoil for the engine series may be installed.
14. **A OEM electric start system may be installed on a OEM unit that was not produced with electric start option.**

DRIVE

1. Brake must be functional and operational at all times.
2. Stock drive clutch engagement must be maintained. OEM drive clutch

rollers and spring must be stock, with no modifications. Driven clutch spring and helix must be OEM. Roller and spring specs will be placed here. No Shimming of primary cover or spring allowed.

3. All guards and shields must be in place.
4. Final drive system must remain as produced. OEM 2.95:1 gear ratio must be maintained, no gear ratio changes allowed.

SKI SUSPENSION & STEERING

1. Front suspension must be OEM for the model.
2. Front suspension must remain in its stock location.
3. Ski widening devices are not allowed in Stock classes unless furnished as OEM and properly filed.
4. Suspension travel may not be altered.
5. Handlebars must be intact at the start of each race day. Any commercially available handlebar allowed. May be altered to fit the driver. Open ends must be capped. Handlebars must be padded. Column or post must remain in its OEM position. Grips may be modified or replaced.
6. Handlebar (itself) may be removed and replaced. Method of affixing handlebar to the steering column must be approved by the technical inspector during safety inspection. ISR has no responsibility or gives no advisement in the method or materials selected to replace the handlebars in this class. Balance of steering column must remain in place and mounting locations must remain unchanged.

SKIS & SKI RUNNERS

1. The only skis that may be used will be Arctic Part # and Yamaha part # 8ML-F3730-XX, Ski and handle (Ski loop) Ski only part # 8ML-F3710-XX
2. Ski suspension components must be OEM.
3. All Ski loops must be at least 1 inch wide and 5/8-inch-thick or one inch diameter round material. Foam may be added to achieve the 1 inch dimension. Refer to General Snowmobile rules sections for description and clarification.
4. Carbide wear bars may be added.

TRACK SUSPENSION

1. The complete suspension must be used as furnished and filed by the manufacturer. Shocks must be OEM for the model. OEM for the model suspension mounting points must be used.
2. OEM available marginal snow wheels may be added to the slide rails. (Rear axle idler wheels must remain OEM for the model.)
3. Suspension travel may not be altered.

TRACK & TRACTION

1. OEM track must be used as produced.
2. No carbon fiber backers or titanium traction products allowed.
3. Tunnel protectors may be added.
4. In oval applications slide lubers may be added.
5. Track clips may be added.

FOR OVAL, TERRAIN, CROSS COUNTRY AND LEMANS RACING ONLY:

1. *Specialized traction.*
   - *a. Maximum of two points per track segment.*
   - *e. No studs on outside belts.*
   - *f. Studs must be unsharpened steel or insert carbide only.*
   - *g. Screw traction components may be used in lieu studs.*
   - *h. Refer to Snow Cross traction rules for placement and type of stud.*

IGNITION & ELECTRICAL

1. An ignition tether switch must be installed and functional.
2. Headlight and taillights must be OEM for the model.
3. OEM taillight must be operational /illuminated in its stock configuration.
4. Ignition and lighting systems must be OEM for the model. No modifications allowed.

FRAME & BODY

1. OEM hood must be maintained without modification. Hood may be painted any color except in Oval and Sno-cross, where orange on the snowmobile is not allowed.
2. Windshield may be removed, modified or replaced. Windshield must have safety trim.
3. All sharp edges must be padded.
4. Welding for repair will be allowed on the chassis. The repair must not alter the general design concept of the component or chassis.

200 IMPROVED STOCK

GENERAL

1. Snowmobile must conform to Stock class rules unless stated otherwise in this section.

ENGINE

1. **OEM 6000 rpm rev limiter must be used. Rec Motors preformance kit #**
2. **Performance Kit is the same for both Arctic and Yamaha models. All components supplied must be used. This includes the front suspension components supplied, must be used in the entirety of the kit.**

SKIS AND SKI RUNNERS

1. Ski must be OEM for the model and year or a commercially available aftermarket ski with a minimum overall length of 20 inches.

SKI SUSPENSION & STEERING

1. OEM Front suspension shocks may be replaced with commercially available aftermarket.
2. **Front suspension must remain in its stock location. (Front suspension widening achieved when using the approved performance kit is allowed.)**
3. Commercially available ski widening devices will be allowed. (no one off setups allowed)
4. Handlebars must be intact at the start of each race day. Any commercially available handlebar allowed. May be altered to fit the driver. Open ends must be capped. Handlebars must be padded. Column or post must remain in its OEM position. Grips may be modified or replaced.
5. Handlebar (itself) may be removed and replaced. Method of affixing handlebar to the steering column must be approved by the technical inspector during safety inspection. ISR has no responsibility or gives no advisement in the method or materials selected to replace the handlebars in this class. Balance of steering column must remain in place and mounting locations must remain unchanged.

TRACK SUSPENSION

1. The complete suspension must be used as furnished and filed by the manufacturer. OEM suspension shocks may be replaced with commercially available aftermarket. Spring spacers may be used to suspension mounting points must be used.
2. Seals may be removed from bearings in bogie wheels, rear idler wheels and/or rear idler sprockets.
3. Commercially available marginal snow wheels may be added to the slide rails. (Rear axle idler wheels must remain OEM for the model.)

DRIVE

1. **Gear ratio may be changed, by using any commercially available chain sprocket kit or commercially available OEM belt style**
2. **OEM primary and secondary clutch and belt must be used. Primary rollers and spring along with secondary spring maybe changed using commercially available parts only. Secondary helix must remain stock from OEM with no** modifications.