



## **STOCK 120 RACING**

*The Midwest Snocross Series conforms to the ISR Guidelines which means we also meet all ISOC rule requirements.*

### **120 / 4 STROKE RACING**

#### **ELIGIBLE RIDERS**

Age 4-12 for Stock class

Age 4-12 for Improved Stock

Age 6-12 for Champ One year experience required

Briggs 206 One year experience is required

#### **ELIGIBLE SNOWMOBILES**

Arctic Cat Z 120

Ski-Doo Mini Z

Polaris XCR 120

Yamaha SRX 120

### **GENERAL SNOWMOBILE RULES**

All 120/4 Stroke Classes are stock based classes. In stock based classes, no change or modification can be done to the stock qualified snowmobile unless specially allowed by these rules. If these rules

do not specifically allow a change or modification, then it must be assumed that the change or modification is not allowed.

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

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

1. Rider entry into an event is open to any qualified individual. The sanctioning body has the authority to evaluate all riders to determine their qualifications.
2. Both the owner and rider are responsible to ensure that their snowmobile and rider safety equipment conform to all of the rules for the class in which they have entered. Any rider that does not meet the requirements listed will be subject to disqualification and forfeiture of any prizes or awards, plus eligibility for the next two (2) races.
3. Teardown will be at the discretion of the 120 Tech Director.
4. If it isn't stated in this section that it can be done, consider that it cannot be done.

5. The Race Director and/or Tech Director have the authority to determine structural integrity.
6. While rider is on the course, radio communication between rider and crew is not allowed.

### **MANDATORY RIDER SAFETY EQUIPMENT**

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

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

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

### **ENGINE**

1. Speed limits may be enforced by race director.
2. Replacing chain tensioner with a commercially available aftermarket tensioner is allowed.
3. No component of the engine (including head, valves, cam, and valve springs) may be altered, changed, or enlarged from the engine manufacturer's original stock specifications nor may any additional components be added to the engine.
4. Blueprinting of engines is not allowed. No removal of material whatsoever will be allowed. This is to include polishing, port matching, deburring, glass or sand blasting surfaces or material removal for the purpose of engine balancing or other reasons.
5. No changes in engine dimensions can be made by gasket adjustments.
6. Spark plugs do not have to be OEM stock.
7. No carburetor/air silencer changes allowed. Only foam maybe added / removed from air box.
8. Jetting changes are allowed.
9. Remote adjustable main jet system allowed.
10. The OEM exhaust system for the model must be used in its entirety. The exhaust system must be fully contained within the confines of the cowl or the chassis and direct exhaust emissions from the enclosed area. Muffler components and/or silencing material must be intact at all times.
11. In order to equalize performance between manufactures models the following changes are allowed.
  - a. Ski Doo racers are allowed to change valve springs to Honda P/N 14751-ZE1-000
  - b. Arctic Cat 120 racers are allowed to upgrade to the 120 Sno Pro kit consisting of valve springs and cam. (spring number 129-21-90700). The kit must be used in it's entirety.
12. To enhance durability, plastic governor gears may be removed in classes, which allow governor to be disabled.

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

### **DRIVE**

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

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

Other than 4-5 classes and improved stock – We allow open clutching engagement. This can be changed at any time per race director's discretion. It must stay max torque Stock style clutch.

### **SKI SUSPENSION & STEERING**

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

### **SKIS & RUNNERS**

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

### **TRACK SUSPENSION**

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

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

**120 Stock** - (other than 4-5 class and improved stock) – If the unit did not come with a rear shock, we will allow a shock upgrade kit for the rear. Front shocks must stay OEM."

### **TRACK & TRACTION**

Only OEM Track with no modifications allowed. With the exception of clips. No traction products allowed.

### **FRAME & BODY**

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

4. All sharp edges must be padded.

### **IGNITION & ELECTRICAL**

1. An ignition tether switch must be installed and functional. Tether switch can be located anywhere except the handlebar.
2. Headlight and taillight must be OEM for model
3. Ignition and lighting systems must be OEM for model. No modifications allowed.
4. Tachometers and/or Data acquisition systems allowed.

### **SO WHAT DOES ALL THIS MEAN?**

It means that this class is intended to stock. What can I do?

1. You can put handle bar risers on
2. You can add a rear shock if your sled does not have one
3. You can remove the plastic governor gear from inside the motor but all other parts of governor linkage must remain.
4. You can change the jetting or add an adjustable main jet.
5. You can use 420/40 or 35 chains.
6. Commercially available chain tensioner can be added
7. Any gear ratio can be used
8. You can replace valve springs with **ISR APPROVED STOCK HIGH RPM** valve springs. Actual spring wire diameter, height, and allowable pressures are found on ISR site. These are available from only a couple of 120 parts providers and they know what is allowed.
9. Clutching in the 4-5 is what it comes with **NO CHANGES**. In the other stock classes you have to use the stock max torque ss (six shoe) clutch. You can change the spring to the heavier black spring and run the lighter weights which will bring your engagement up.
10. You can add a tachometer
11. Snow wheels may be added to slide rails but rear idler wheels must remain stock.
12. Track clips may be added
13. Commercially available skies may be added but must be at least 20".
14. **MUST HAVE WORKING TEATHER**
15. **MUST HAVE WORKING HEADLIGHT AND TAIL LIGHT**
16. **NO OTHER CHANGES TO ENGINE OR CARB ARE ALLOWED EXCEPT REMOVAL OF FOAM IN AIRBOX IF APPLICABLE.**
17. **NEW for 2016 – 6800 RPM max rev limiter required for all IMPROVED stock classes.**

**THIS IS MEANT TO BE A QUICK BREAKDOWN FOR THE NEW RACER/MECHANIC/PARENT. ALL RACERS AND SLEDS ARE EXPECTED TO**

FOLLOW ALL ISR RULES AND GUIDELINES AVAILABLE AT  
[WWW.ISRRACING.ORG](http://WWW.ISRRACING.ORG)