

**BULLETIN NO. 18/19-009      DATE: 13 May 19**

**TO: ALL ISR Oval Racing Affiliates**

**SUBJECT: New Oval Formula III Class**

**F- III (Formula III)**

Any stock qualified Super Stock snowmobile of 600 cc or less engine displacement volume, or equivalent 4 stroke models. Must be 2018 or newer model. In stock and stock- based classes, no change or modification is permitted 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. In the production of this F-III sled, exotic material such as, but not limited to Magnesium, Titanium and Carbon Fiber is not permitted in the construction of this sled anywhere unless specifically spelled out and or if it was stock OEM for the Make and Model. If it doesn't say you can use it, it means you can't. This includes tractions production and any other add on's or accessories.

The snowmobile must have original OEM engine, hood, intake, exhaust, frame and drive. Named components must be OEM for the model and year, or properly filed OEM replacement parts that supersede the original OEM parts. No alterations to the engine, fuel management, ignition management or design parameters is allowed unless specified in this ruleset

**ENGINE**

1. Engine must remain in original mounting location.
2. Engine must remain stock in all dimensions and components unless specified. Engine must use OEM fuel management system in its entirety, except for the fuel tank.
3. No removal of material whatsoever is allowed. This is to include polishing, port matching, deburring, abrasive blasting surfaces or material removal for the purposes of engine balancing or other reasons. No addition of material is allowed.
5. Stock OEM pistons only are allowed for replacement.
6. There may be no more than one-cylinder base gasket to a cylinder unless specified by the engine manufacturer.
7. Spark plugs do not have to be OEM.
8. Control cables and linkage do not have to be OEM.
9. On Four Stroke Engines oil reservoir may be relocated for ease of design, but no enhancements that increase performance will be allowed.
10. Engines will have OEM tags and/or serial numbers affixed to the engine.
11. The after muffler (can) may be changed or altered, except for material used in construction. The main exhaust system must remain stock and unaltered. This includes Y pipe, expansion chamber, pulse charger. Tabs or brackets may be welded to the external body of the original exhaust system to facilitate the installation of an aftermarket can/silencer. Bungs may be welded anywhere in the system for data acquisition. Original bungs, and mounting surfaces for any OEM data collection/O2 sensors must be maintained in original location.
12. Thermostats may be removed.

13. Bulkhead mounted cooling system components must remain in the stock location. Tunnel mounted heat exchangers may be relocated/replaced for stud clearance. Additional cooling mediums, (extrusions, radiators, reservoirs) may be added.

14. A easily accessible fuel sampling device must be outfitted on each sled in competition for fuel testing purposes. Wahl Bros. Test Kit #06-739A is the recommended component for this use. Builders may also create their own sampling system.

#### **DRIVE-BRAKES**

1. Only OEM clutches may be used.
2. The clutch cover must be separate of cowl configuration and cover clutches down to center of clutch bolt or below. Must be .060 inch, 6061T6 aluminum or equivalent steel material and be covered with 6-inch-wide belting. Snowmobile with removable side panels may bolt clutch cover to side panel to meet this requirement. If OEM for the make and model clutches are used, then the stock clutch cover is acceptable.
3. Any springs, weights or ramps may be used. No clutch engagement RPM limit. Billet helixes allowed.
4. Drive belts do not have to be OEM.
5. Any drive chain and sprockets may be used.
6. Chain case must be original OEM for the model equipment. Must remain in original mounting location
7. Track drive shaft and/or track drive sprockets may be trued. Track drive shaft and sprockets may be changed.
8. Brakes may be changed or altered but must be operational always. Brake components must be commercially available. Brake may be located on driveshaft or jackshaft.
9. Liquid cooled brake systems allowed.
10. Brake disk may not be modified in the pad contact area. Brake disk hub may be modified for mounting. OEM diameter and thickness must be maintained. (Clarification) {Larger / thicker are acceptable, but not smaller / thinner}. Any brake disk used must be of the same material as OEM for the model disk.
11. Brake control handle must remain in OEM location on the left, front side of the handlebar.
12. Brake ducts may be used, must contain and direct airflow to the brake caliper and disc assembly only.
13. Brake systems that serve as or are components of traction control methods are not allowed.

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

Front suspension mounting locations (both upper and lower) on the chassis bulkhead/weldment/casting must remain in OEM location. Upper shock mount must remain in OEM location.

Front suspension control arms, spindles and tie rods are open. Front suspension structural materials must be steel or aluminum, including fasteners.

3. Sway bars (anti -sway) may be added. Sway bars must be steel only.
4. Maximum width of ski suspension and skis at normal ride height with rider is 45 inches center to center at the carbide cutting edge. Carbide must be centered on the ski. Suspension must be centered in chassis. No offset in excess of ½ " (.500 inch) adjustment allowance.
5. Reinforcement of components is allowed per the guidelines specified in the Gusseting section of the General Rules. Structural integrity must be maintained.
6. Any air/hydraulic or gas over hydraulic shock allowed that does not have electronic control methods allowed. Shock travel and data recording allowed.
7. Handlebars must be intact at the start of each race day. Any steel handlebar allowed. Steering column may be altered but must remain in lower original mounting location. Upper mounting location may be changed. Open ends must be capped. Handlebars must be padded. Grips and controls may be modified. Throttle must be operated with a thumb operated mechanism located on the right-hand handlebar to the rear of the bar itself (no twist grips).

8. Any handlebar risers, vibration mounts and relocation mounts allowed.
9. Any steel spring may be used on the suspension. Titanium springs not allowed.
10. A ride height dimension may be instituted at anytime to control the performance level of the vehicle.

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

1. Any commercially available ski that meets ISR standards for design and material is allowed.
2. Skis must have an ISR approved ski loop design for safety.
3. Snowmobiles must not use more than eight (8) inches of continuous cutting-edge maximum per ski. (Subject to change at any time.) Cutting edge is defined as sharpened carbide or high wear resistant material. Flat wear plates on leading and trailing edges of host bar are not considered cutting edge carbide.
4. Cutting edge material may be altered to an angle of not less than sixty (60) degrees inside included angle.

#### **TRACK SUSPENSION**

1. Rear suspension is open as to design and type. Suspension must be centered in the tunnel.
2. Rear suspension structural materials must be steel or aluminum.
3. Any hyfax allowed.
4. Shock absorbers, any air/hydraulic, or gas over hydraulic, are allowed. No electronically controlled shocks.
5. Any **steel** spring may be used in the rear suspension.
6. Methods of slide lubrication may be added. Lube tanks may be located at the discretion of the builder.
7. No hole shot devices allowed. (Mechanical or electronic.)

#### **TRACK & TRACTION**

1. The only tracks that may be used are the Camso 9997R track, (15X121X.725) or the Camso 9812R (15X121X.525). Additionally, a 13.5X121X.525 track is being constructed and will be available in fall. An ISR bulletin will be published when it is available.
2. The number of traction control devices (studs) is open. (Subject to change at any time.) No hooker plates allowed.
3. All traction devices must adhere to specifications in general rules section.
4. No softening, chemical treatment, cutting, or altering of the track is allowed.
5. Stud backers must be steel, aluminum, or plastic. No titanium studs allowed.
6. T-nut fasteners for traction products must be steel.

#### **FRAME & BODY**

1. Removal of any material from total machine by means of heat, acid, drilling, grinding, abrasive blasting, peening, substitution, or total elimination will not be allowed, unless specified.
2. Seat design and fitment is open.
3. Access openings are allowed for component removal or service. Vents may be covered or closed.
4. Additional plate material may be added to the tunnel at the suspension mounting holes.
5. Tunnel protective wear strips may be added, removed or altered.
6. The tunnel may be cut off no less than of 8 inches behind (to the rear of) the rear mount point of the track suspension. This can facilitate construction of the tunnel enclosure and provide proper clearances of the enclosure to the track. See #9. For additional requirements
7. The rear of the tunnel must be enclosed with steel or aluminum comparable in strength to the tunnel material. 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 to the rear suspension mounting bolt. 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. The tunnel enclosure must be securely welded, bolted or riveted to the tunnel.
- 8.. Fuel tanks are open in design and location. No pressurized fuel tanks allowed. Aluminum, plastic or steel tanks only.
  9. OEM body panels must be used. Sound deadening foam may be removed.
  10. Hand guards allowed.
  11. Required minimum sled weight is 460 pounds. (Weight can be changed at any time.)
  12. Any windshield may be used. Windshield must have safety edging, and be installed in stock location
  13. Rear bumpers may be added, removed or relocated. Must have a functioning rear bumper attached to the rear of tunnel. Bumpers must not be a safety hazard.

### **VENTING**

Venting in F-III class.

Applies to all classes that use SS race sleds approved by ISR.

Manufacturers will be permitted to devise vent kits for Super Stock sleds to aid in controlling under cab heat, air movement and improve safety in the areas affected by the beyond design limits operating temperatures encountered in competition.

### **ALLOWABLE ADDITIONAL VENTING FOR ALL SUPER STOCK SLEDS.**

1. An additional 36 square inches (area) of venting will be allowed/permitted.
2. Venting may be located anywhere in the cab/hood/ belly pan structure, including dashboard panel.
3. Venting may be utilized for air in or air out.
4. Venting shall not be directed, channeled, or ducted to specific areas. All venting must use natural airflow to cool or move air through the area attempting to cool or assist in airflow.
5. Size of venting in each situation is not dictated, but total vent locations must not exceed 36 Square inches in area, in excess of production venting.
6. Venting may be covered with "Frog Skin" or other like materials to prohibit snow ingestion.
7. These vents shall not be connected to airbox/plenum, or any other part of the intake system, regardless of design of the engine. (carb or EFI)
8. All users must follow the manufacturer's approved layout of the venting and must adhere to size and location specified. No additional changes by the installer will be allowed. Manufacturers must provide instructions, template if necessary, and other info when venting is required. The manufacture can inform of this process by electronic communication.

Manufacturers to file only one update per model year/season

### **IGNITION & ELECTRICAL**

1. Ignition must be OEM for the year and model.
2. CDI/ECU/ECM module may be reprogrammed.
3. No aftermarket device allowed which interrupts ignition for launch control or traction control unless OEM for the model.
4. Instrumentation may be added but must not present a safety hazard.
5. A functioning OEM LED tail light must be used. The tail light must be displayed whether the engine is running or not.
6. Head lights must be original OEM equipment. Must remain in original location. Headlight must be covered and obscured. No light shall emit from the periphery of the lens during competition.