

March 11, 2011

NHRA 2011 Rules for NHRA PRO STOCK Snowmobile Event Series

Pro Stock Snowmobile Asphalt Drag Racing

PRO STOCK SNOWMOBILE

DESIGNATION

PRO, preceded by the sled number

Reserved for 2000 or later stock-appearing, gasoline burning, naturally aspirated snowmobiles built specifically for drag racing competition. Minimum weight at conclusion of run: 650 lbs including rider and gear.

GENERAL

All snowmobiles must begin as a stock qualified production snowmobile and retain OEM stock appearing profile. Any motor/chassis may be interchanged within brands. All components that are allowable for modification must retain structural and mechanical integrity. Any ballast needed will be bolted to the machine.

REQUIREMENTS & SPECIFICATIONS

ENGINE: 1

ENGINE

Any OEM snowmobile crankcase within brand is permitted. A two (2)-stroke engine has a limit of 1020cc and is limited to three (3) cylinders. Any commercially available aftermarket cylinder and cylinder head is allowed. Any bore/stroke is permitted, ~~2% tolerance for maximum cc size. All internal engine components may be changed and/or modified with like material. (If stock part was aluminum, then aluminum must be used as replacement. If stock part was steel, then steel must be used as replacement.)~~ **Billet crankcases and engine components are allowed. All crankcases must maintain stock bore centers and be sized to accept stock crankshaft components for the brand.** Stock crankcase may be modified to change or relocate reeds. All reeds must be commercially available. Reed cage change must be accomplished without sacrificing the mechanical integrity of the crankcase. To modify the outside of any stock or

aftermarket cylinder is allowed as long as the structural and mechanical integrity is intact. Dual spark plugs permitted as long as the stock appearance of the sled is not compromised. Nitrous oxide, super charging, turbo charging or fuel injection is NOT permitted. A maximum of one (1) venturi per cylinder will be allowed. Any commercially available aftermarket carburetor is permitted. Fuel pump may be modified and/or changed from original. If an electric pump is used, it must have its own separate shutoff. Air boxes may be removed, modified or built.

EXHAUST

Any functionally silenced exhaust modification or replacement is allowed. (silencers are optional) Exhaust must exit from the side of the machine and not the bottom.

FUEL

NHRA accepted racing gasoline only. (See Section 20 - General Regulations, Paragraph 1:6 FUEL) The use of additives prohibited. NHRA may specify the 2 cycle oil to be used.

DRIVETRAIN: 2

CLUTCH

Any commercially available snowmobile clutch and drive belt are allowed. Clutch covers are mandatory. Clutches must be covered down to the center of the clutch bolts. Clutch cover is constructed of minimum 0.125 inch 6061-T6, 2024T3 or 7075T6 aluminum.

TRACK

Camoplast Challenger asphalt tracks are the only tracks permitted for competition. Any track at or below wear bar marks will not be permitted. Tracks must be installed with direction arrows correct. No traction type compounds may be applied to tracks.

SKIS AND WHEELS

Any aftermarket ski is allowed. Structural integrity must be maintained. All steering wheels shall be of materials specifically designed for snowmobile use on a dry surface. Skis shall be constructed in accordance with illustrations provided in Section 4G- E.T. Snowmobile. The minimum length is fifteen (15) inches and

the maximum length is twenty-one (21) inches. Both skis must be identical and not staggered on the snowmobile. Ski distance (center to center of the wheels) is to be a minimum of forty (40) inches and a maximum of forty-five (45) inches. The area under the snowmobile, measured from behind one ski to the other ski, must be a minimum of two (2) inches above the ground and a minimum of two (2) inches wide behind the ski. Ski loops must be 1inch O.D. either aluminum or steel tube but may be taped or fitted with plate.

BRAKES AND SUSPENSION: 3

BRAKES

Lower drive shaft brake is required. Structural integrity of tunnel and brake system must be maintained. Integral chaincase to bulkhead allowed providing brake assembly is relocated to the driveshaft. Drive shaft brake system located outside the tunnel must be enclosed.

REAR SUSPENSION

Any aftermarket or OEM track suspension is permitted. If modifications to OEM or any commercially available aftermarket suspensions are made, structural integrity must be maintained.

FRONT SUSPENSION

If any modifications to suspension are made structural integrity must be maintained. Front suspension and shocks must be in a position that maintains stock appearance and factory type body parts of type snowmobile are attached so that stock appearance of type snowmobile is maintained. Spindles may be strengthened or replaced with a stronger spindle. The minimum wall thickness is 0.120 inch and the minimum outside diameter is 0.750 inch. An inspection hole is required if the wall thickness is not visible.

CHAINCASE

Chaincase is required. Chaincase can be stock or commercially available aftermarket enclosure.

STEERING

Currently accepted cable steering is allowed. Minimum cable housing diameter is 0.500 inch.

CHASSIS: 4

CHASSIS

Snowmobile must look like stock model of particular brand. Seat windshield and tunnel must be stock appearing. Windshields are required. Commercially available aftermarket frames permitted. Design and integrity are subject to tech inspection. ALL aftermarket frame components except braces, brackets, and gussets must be manufactured from 4130 chromoly tubing and plate or 6061-T6 aluminum plate. Use of stock OEM bulkhead allowed and reinforcement allowed. All welding must be done by approved TIG heliarc process. Grinding of welds is prohibited. All components must maintain structural integrity. Stock tunnels may be used with any commercially available aftermarket front end. Motor mounts and jack shaft may be changed from original location. Any engine location is allowed as long as stock snowmobile profile is not compromised. Any chain case modification allowed. Overall length is limited to 96 inches as measured from center of ski mounting bolt to center of rear axle. Snow flaps are required and must come down to a height of the center of the rear axle with driver in seated on sled. Flap may be made of any material, including screen; see section 4G of 2011 NHRA rule book for mounting requirements. **Effective 1/1/2012, minimum height (as measured at the steering crown) will be 30 inches, unless OEM height is less.**

TUNNELS

Stock or aftermarket tunnels allowed. Tunnel material minimum 0.050 inch 6061T6 aluminum. Tunnel may be reinforced with similar aluminum plate or chromoly tubing.

FUEL TANK

The fuel tank may be modified to accommodate a fuel cell or smaller tank. The OEM style outside shell must remain intact. A fuel cell cap may replace the original fuel cap.

FOOTSTOPS

Running board foot stops are permitted, but may not be wider than the running board at the position they are installed. They may not extend higher than the top of the tunnel at the point of installation.

CONTROLS

Handlebars, handlebar grips and controls may be modified. Controls must maintain stock configuration. No twist type throttles or rotating throttle from stock position.

AIRDAMS

Front air dams are permitted. If air dam is mounted perpendicular to the skis, it must maintain a minimum of one-inch (1") ground clearance. If air dam is mounted in front of or behind the skis, it must maintain a minimum of two inches (2") ground clearance from ski to ski. The area under the snowmobile, measured from behind one ski to the other ski, must be a minimum of two (2) inches above the ground and a minimum of two (2) inches wide behind the ski. Air dam is not permitted to extend past the front OEM bumper or three (3) inches past belly pan, whichever distance is greater.

BODY WORK

No additional bodywork that changes stock appearance allowed (other than **suspension side skirt** and/or air dam.) Aerodynamic devices prohibited unless originally incorporated into same OEM of that brand. Openings for component accessibility will be allowed. The hood and belly pan may be removable as long as the OEM appearance for the said model is maintained and structural integrity is intact. One piece after market body panels are permitted but they must retain OEM dimensions.

SEAT

May be cut down for lower profile, but needs to resemble stock configuration. Seat must be maintain stock appearance for the brand regardless of construction material. No seat pads allowed. Rider must sit in upright position.

ELECTRICAL: 8

IGNITION

Any snowmobile OEM ignition, and MSD # 00-00-2530 (designed for snowmobiles) , MSD 7530T, 75301, 7530 ignitions are allowed. No additional electronics/devices to aid in down-track RPM limiting will be permitted. Traction control is prohibited. (See Section 20- General Regulations Paragraph 9:11 Traction Control).

IGNITION SHUTOFF

Snowmobile must be equipped with a positive ignition-cutoff switch attached to the rider with a lanyard. Snowmobile must also have a handlebar mounted ignition-cutoff switch.

TAIL LIGHT

A functional tail light is mandatory for night operations

SUPPORT GROUP: 9

PARACHUTE

Prohibited.

DATA RECORDERS

Permitted for information gathering only. Throttle operation, clutch engagement, etc. are to be solely under the control of the rider. Traction control devices not permitted. (See General Regulation Section 20)

WARM UP STANDS

Must be used when warming up the engine. Lanyard cord (tether cord) must be attached to someone anytime engine is running.

RIDER: 10

CREDENTIALS

A valid NHRA competition License is mandatory.

HELMET

Full-faced helmet meeting Snell M2000, M2005, M2010, K2005, SA2000, SA2005, SFI 41.2A, or SFI 31.2A. Shield mandatory.

PROTECTIVE CLOTHING

Full all-leathers, boots above the ankle and leather gloves are mandatory. Suits may be one-piece design or joined by a zipper at the waist. Gloves must be kevlar lined or equipped with slide buttons.

SAFETY

All general safety requirements apply as specified in NHRA rule book.

In the case of other class specific rules questions, the NHRA rulebook and/or NHRA rules Revisions will be consulted.