



TROPHY TRAIL IMPROVED STOCK CLASSES AND RULES

600
700
800
850
1000
4 Stroke

TRAIL IMPROVED STOCK GENERAL SNOWMOBILE REQUIREMENTS

1. The snowmobile must be all original OEM parts as sent by factory unless specified
2. Improved trail stock machines can run on mixed gasoline
3. Tethers are required, tek-vests are highly recommended
4. 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 now allowed.

1. Snowmobile must begin as a qualified stock snowmobile.

2. Any alterations allowed in stock are allowed in Improved Trail Stock.

3. The snowmobile must have original OEM for the model engine, frame, suspension arms, cowl, fuel tank, airbox, seat components must be OEM for the model and year, or properly filed OEM replacement parts that supersede the original OEM parts. No Altering of any stock components

4. Improved Trail Stock maximum width dimensions (ski stance) are as produced by the manufacturer OEM year and model

Engine

1. Engine parts must be OEM for the model except where noted. The following OEM engine parts may be modified internally, but not replaced:

- a. Crankcase
- b. Cylinders. (No external fastening devices for mounting cylinders allowed.)
- c. Heads



2. Crankshaft and crankcase must be OEM for the model. No modification allowed to the external surfaces of the crankcase even if the area is hidden by another part or bracket
3. The entire external portion of the engine must be stock appearing.
4. OEM stroke must be maintained.
5. The OEM number of cylinders must be maintained.
6. Cylinder head(s) must be OEM for the model. The cylinder head may be modified internally including changed replaceable combustion chambers and machining out of combustion chambers to install inserts. Replacement combustion chambers must be commercially available. The visible outer portion of the cylinder head or cylinder head cover must remain stock appearing and the spark plug must maintain OEM location.
7. Cylinder must remain within the OEM shell dimensions to include crevices, bulges, etc. No visible external changes allowed.
8. The cylinders may be raised to change port height. If a plate is used to raise cylinder height, the plate including gaskets cannot exceed ½ inch, (.500) in thickness.
9. Engine displacement may be increased by cylinder boring to the maximum displacement for any Improved Trail Stock class. If so modified, the snowmobile is no longer eligible for smaller displacement classes.
10. Engine components allowable for modification or replacement.
 - a. Bearings
 - b. Rods-center to center dimension must remain OEM for the engine.
 - c. Pistons
 - d. Piston pins
 - e. Rings
 - f. Gaskets
 - g. Reeds and reed blocks may be changed, (external plate may be thicker) if they do not change outside dimensions for the cylinder or crankcase. No external modifications allowed to the crankcase or cylinder to accommodate reed block change.
11. Air box may not be removed, air box may be altered for added air flow.
12. On snowmobiles with OEM for the model Electronic Fuel Injection, the throttle body including the exterior may be modified for increased fuel flow. Systems that allow



increased fuel delivery may be used. The stock control module must be used. Systems that allow increased fuel delivery may be used (i.e. Power Commander or others).

13. Oil pumps may be removed. Oil injector nozzles may be plugged or removed.

14. No superchargers, turbochargers, or nitrous systems allowed.

15. Cooling system must be fully operational and retain OEM for model.

16. Harmonic balancer may not be removed.

17. One additional torque arm allowed (any style).

18. A torque plate is not allowed under engine or under motor mounting plate.

19. Any functionally silenced exhaust allowed exiting the OEM location.

20. Allowed gasoline and lubricants:

a. Only a commercially available pump gasoline that complies with these rules is allowed. (The term “pump gasoline” includes fuels dispensed from service station pumps and racing fuels that are commercially available in fuel cans and drums.) The gasoline may be mixed with petroleum, vegetable, or synthetic based lubricants. The use of oils, fuels (including gasohol), and additives that provide power-boosting is prohibited

b. 93 octane max ethanol fuel prohibited

Drive

1. OEM for brand primary and secondary

2. Jackshafts of like material may be changed to accommodate a clutch

change but must remain OEM material. No welding allowed to accomplish this change. No Lightweight shafts allowed

3. Track drive axle and chaincase must remain OEM concept for the model and remain in OEM location.

4. Any OEM for the brand track drive sprocket allowed. Unless otherwise specified, no modification allowed to frame, drive, or suspension to install sprockets.

5. Complete brake system must be OEM for the make and model.



Ski Suspension & Steering

1. Brake control handle must remain in the OEM location (left side, front side of bar).
2. Must maintain 5'' (inches) of compression suspension measured at the front bumper.

Track Suspension

1. Track suspension may be located anywhere in the tunnel where the manufacturer has drilled, partially drilled, or marked for mounting holes. Pre-Drilled plates may be drilled out to facilitate suspension adjustment. Pre-Drilled backing plate holes may not be enlarged or slotted.
2. Commercially available long track rails and rail extensions allowed. To facilitate installation of long track rails, suspension may be moved up or down in the tunnel (a limit of three inches). The front torque arm must be OEM stock for year and model. Rear torque arm must remain OEM stock for the year and model and may be relocated to accommodate the longer track and rail assembly. Suspension components must remain OEM stock for the year and model. Tunnel must be extended to accommodate the longer track and suspension.
3. Must maintain 5'' (inches) of compression suspension measured at the rear bumper
4. Any size, material, and number of rear axle idler wheels allowed

Track

1. Any commercially available one-piece molded rubber track allowed. Tracks width plus + or - 1.0 inch
2. No Chisel studs or grinding on studs allowed. Any commercially available carbide tip studs allowed
3. No stud nut or backer plate can exceed the threads of the stud

Frame & Body

1. Any chassis alterations, additions or removals, which alter stock appearance or dimensions are not allowed.
2. Tunnel can be repaired but must maintain OEM length.



3. The OEM fuel tank must be the only tank that can be used for fuel supply. Oil injection tanks may not be used as a fuel tank.
4. Insulation foam may be removed from engine compartment.
5. Tunnel material in all machines in all classes must maintain its structural integrity and be free of wear from traction devices.
6. Fox float shocks are allowed in replacement of standard shocks

Ignition & Electrical

1. Ignition must be OEM for the model. CDI/ECU may be replaced with a unit from any stock qualified model within the brand. Flywheel and stator may be modified.
2. Fixed ignitions may be moved (+ or -) four (4) degrees.
3. No aftermarket device allowed which interrupts ignition for launch control or traction control unless OEM for the model.
4. Headlight and taillight must be original OEM equipment and must remain in original mounting location. Headlight and taillight must be operational at the start of the race. Taillight cannot be battery operated.

TROPHY TRAIL IMPROVED STOCK TURBO

1. Engine must be OEM for the model.
2. Turbo must be OEM for the model and NO altering of housing or wheel.
3. Pump Gas 93 octane. Ethanol fuel prohibited
4. No straight pipe (must have muffled exhaust exiting the bottom)
5. Studder buttons are allowed
6. Unaltered commercially available carbide tipped trail studs
7. No side exhaust
8. Rail extensions allowed
9. OEM for model Suspension.
10. No lightweight parts allowed