



2019 600 Indy XC Cross Country ICE Racing settings

All part numbers listed are Polaris part numbers unless otherwise noted.

Fuel: Use non-ethanol 91 octane premium pump gas, select 91-NON fuel curve on vehicles digital dash display

Oil Injection: Use Polaris VES-Extreme synthetic 2-cycle oil (#2883733 -quart) or (#2883732 -gallon)

Clutching Spec: 10-64 weights, 180/320 primary spring, 155/222 secondary spring, 42-degree helix and 3211208 belt. Target RPM is 8350

Clutching: Order the below clutch springs and helix from Venom Products, www.venomproducts.com
1-210135-010 – primary spring 165/327 (option spring), 1-955557 – secondary spring 175/240
(option spring), 1-LW420453 – straight helix 42/44, 1-210135-013 – primary spring 180/320

Order the below secondary clutch spring, weights and drive belt from Polaris
1-7043063 – secondary spring 155/222 1-3211208 – drive belt
3-1321584 – 10/66 weights (option weights) 1-7041988 – primary spring 165/310 (option spring)

Gearing: 22 tooth top gear (Stock)
41 tooth bottom gear (Stock)

Brakes: Replace stock brake rotor and pads with XCR's. 1-2206235 – Brake Rotor XCR, 1-2206251 – brake pads (type81) XCR, 1-5452823 – Cooling scoop (open up side panel vent to match scoop)
Hayes aluminum angled brake lever (#0617001*available from Race Dept.)
Optional Hayes Pro Float Rotor kit is also available from the Polaris Race Dept. (#718001)

Controls: replace the stock kill switch with the push button below and install the below tether asm. There is an open port for the tether under the fuel tank cowling in front of the fuel cap
1-4010311 – push button kill switch 1-4010849 – tether 1-7556212 – tether washer

Windshield: 1-5451234 - windshield, Mid Clear

Tracks: Camso 129" Cobra (#5416604*Stock), Camso 129" Ripsaw2 (#5416585) or Camso 129 Ripsaw1 (#9358R* Camso direct part number)



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Suspension Springs:

IFS: 120lbs/in coil over spring 9" x 1.88" I.D. (#7041701-067)

Front track: 80lb/in coil over spring 6" x 2.25" I.D. (#0617003 *order from Race Dept.)

Rear track: 11lbs/degree torsion springs at 95-degree preload. (#0818005*order from Race Dept.)

Suspension spring preloads: .500" preload on IFS spring, .250" preload on front track spring, Medium/Low on torsion spring preload blocks

Front track shock: light weight internal IFP Walker Evans Racing shock will also be available from the Race Dept., (#0617012) and 85lb/in coil over spring 6" x 1.88" I.D. (#0617008)

Sway Bar: stock Indy .531" sway bar or Optional stiffer .562" sway bar (#0617006 *order from Race Dept.)

Front torque arm: Drill a new hole in the limiter strap to shorten the front arm travel length. Measuring from the top of the bump stop on the rail to the bottom of the torque arm the distance should be 1.625"

Bogie Wheels: replace the two outside stock bogie wheels with the below solid bogie wheels.
2-1590457 – Solid bogie wheel asm

Rear axle: Replace the three stock rear axle wheels with the four solid wheels below. The below spacer and washer is required to install 4 rear axle wheels.
4-1590388-070 – solid rear axle wheels, 1-5333283 – rear axle spacer, 1-7555918 – rear axle washer

Traction Products: Contact Stud Boy Traction products at www.studboytraction.com . (176 stud's minimum are recommended for ice racing) **stud protectors are required*

Stud Protectors: When installing studs, a stud protection kit is required 1-2883572 – stud protection kit

Skis: Order skis from USI at www.usi-skis.com

USI X2 triple threat stage 1 ski (#X2)

USI 301 high performance mount shoe (#po1-hpb)

or

Order skis from C&A Pro at www.caprokskis.net

XPT ski (#0420)

Mounting kit (#76000224)



Over structure Reinforcement: It is recommended to install 6061-T6 aluminum tube (O.D. 1.125" wall thickness of .058") inside of the stock Carbon Fiber over structure tubes. Refer to Indy over structure bracing tech tip for more details. (<https://snowmobiles.polaris.com/en-us/team-polaris/racer-resources/>)

Rules: for the rules pertaining to this class go to the International Snowmobile Racing website, www.isrracing.org

The suspension settings listed here are the starting point. Adjust suspension calibrations to course/ice conditions to maximize the vehicles handling.

To order any of the Polaris Parts listed on this sheet contact Brad Seavers at the Polaris Race Dept. 715-355-3008 or bradley.seavers@polaris.com

For any race setup questions contact Ben Hayes at the Polaris Race Dept. 715-355-5157 or Ben.hayes@polaris.com



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RACING

Cross Country Indy **Rough Ice IFS** shock settings

Shock part number: 7045064

Oil side spacer: .300"

Piston: Black 3 port, .052" bleed hole

IFP height: 2.0"

Nitrogen PSI: 200

Jounce bumper: .750" tall (STK)

*Replace stock needle shaft with (#1800561) solid shock shaft

*Remove internal needle from piggyback

Compression clickers: Low speed: 7 clicks out from stiff

Compression

1.300 x 8

1.250 x 8

.800 x 10

1.200 x 8

1.100 x 8

1.000 x 8

.800 x 8

.700 x 10

.625 x .063 washer

.875 x .090 plate

Rebound

1.100 x 6

.800 x 10

1.000 x 6

.900 x 6

.800 x 6

.700 x 6

(x2) .625 x .063 washer

torque shim stack nut to 140in/lbs.



POLARIS[®]

RACING

Cross Country Indy **Rough Ice front track** shock settings

Shock part number: 7044878

Oil side spacer: 2.0"

Piston: Black 6 port, .073" bleed hole

IFP height: 1.750"

Nitrogen PSI: **150**

Jounce bumper: remove jounce and plastic scraper

Compression clickers: Low speed: 8 clicks out from stiff

Compression

1.550 x 8

1.000 x 8

1.550 x 8

1.200 x 8

1.450 x 8

1.200 x 8

1.000 x 8

.900 x 8

.800 x 8

.600 x 15

1.000 x .075 washer

Rebound

1.300 x 8

.700 x 8

1.100 x 12

.900 x 10

.700 x 8

.600 x 15

.750 x .065 washer

torque shim stack nut to 15ft/lbs.



POLARIS[®]

RACING

Cross Country Indy **Rough Ice rear track** shock settings

Shock part number: 7044819

Oil side spacer: .700"

Piston: black 6 port, .052" bleed hole

IFP height: 2.0"

Nitrogen PSI: 200

***Replace stock needle shaft with (#0818006) welded needle short shaft (*must order from Polaris Race Dept.)**

Compression clickers: Low speed: 4 clicks out from stiff

Compression

1.300 x 8(x4)

1.300 x 6

1.250 x 8

.900 x 8

1.200 x 8

1.100 x 8

.900 x 8

.700 x 10

.625 x .063 washer

.875 x .090 washer

Rebound

1.100 x 8

1.000 x 8

.900 x 8

.800 x 8

.700 x 10

(x2).625 x .063 washer

torque shim stack nut to 140in/lbs.



POLARIS®

RACING

Cross Country Indy **Plowed Smooth Ice IFS** shock settings

Shock part number: 7044564

Oil side spacer: .600"

Piston: Black 3 port, .052" bleed hole

IFP height: 2.0"

Nitrogen PSI: 200

Jounce bumper: .750" tall (STK)

*Replace stock needle shaft with (#1800561) solid shock shaft

*Remove internal needle from piggyback

Compression clickers: Low speed: 7 clicks out from stiff

Compression

1.300 x 8
1.250 x 8
.800 x 10
1.200 x 8
1.100 x 8
1.000 x 8
.800 x 8
.700 x 10
.625 x .063 washer
.875 x .090 plate

Rebound

1.100 x 6
.800 x 10
1.000 x 6
.900 x 6
.800 x 6
.700 x 6
(x2) .625 x .063 washer

torque shim stack nut to 140in/lbs.



POLARIS[®]

RACING

Cross Country Indy Plowed Smooth Ice front track shock settings

Shock part number: 7044878

Oil side spacer: 2.0"

Piston: Black 6 port, .073" bleed hole

IFP height: 1.750"

Nitrogen PSI: **150**

Jounce bumper: remove jounce and plastic scraper

Compression clickers: Low speed: 8 clicks out from stiff

Compression

1.550 x 8

1.000 x 8

1.550 x 8

1.200 x 8

1.450 x 8

1.200 x 8

1.000 x 8

.900 x 8

.800 x 8

.600 x 15

1.000 x .075 washer

Rebound

1.300 x 8

.700 x 8

1.100 x 12

.900 x 10

.700 x 8

.600 x 15

.750 x .065 washer

torque shim stack nut to 15ft/lbs.



POLARIS[®]

RACING

Cross Country XCR Plowed Smooth Ice rear track shock settings

Shock part number: 7044563

Oil side spacer: 1.0"

Piston: black 6 port, .052" bleed hole

IFP height: 2.0"

Nitrogen PSI: 200

***Replace stock needle shaft with (#0818006) welded needle short shaft (*must order from Polaris Race Dept.)**

Compression clickers: Low speed: 4 clicks out from stiff

Compression

1.300 x 8(x4)

1.300 x 6

1.250 x 8

.900 x 8

1.200 x 8

1.100 x 8

.900 x 8

.700 x 10

.625 x .063 washer

.875 x .090 washer

Rebound

1.100 x 8

1.000 x 8

.900 x 8

.800 x 8

.700 x 10

(x2).625 x .063 washer

torque shim stack nut to 140in/lbs.