

# 2025 Indy Matryx Cross Country Factory 600 ICE Racing settings

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

<u>Fuel:</u> Use <u>non-ethanol</u> 91 octane premium pump gas with Polaris Anti-Static fuel treatment, 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)

<u>Clutching Spec:</u> 10-64 weights (stock), 165/310 primary spring (#7045965), 160/240 secondary spring (stock), 44-degree straight helix (custom order from Venom) and #3212338 belt (stock). Target RPM is 8300 to 8400

Optional Clutching parts: 150/290 primary spring (stock), 155/222 secondary spring (#7043063)

\*Order the below clutch Helix from Venom Products, www.venomproducts.com

### The Secondary clutch requires "Big Roller" Helix's.

Straight 44 Non-reverse/Straight 46 Non-reverse Twin Trax Helix

\*The Non-Reverse Helix is highly recommended for ICE Racing

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

**At some racetracks taller gearing will deliver improved performance/speed.** Use 21 tooth top gear (#3221097) with 38 tooth bottom gear (#05-776-Wahl Brothers Racing Part #) and 68P Chain (#3221112)

Controls: Order the #RR-001-SGL Race Rubber from www.race-rubber.com and install over the kill switch knob

<u>Tracks</u>: Camso 136" Cobra (#5413655\*Stock) or Camso 136 Ripsaw1 (#2839969)

<u>Traction Products:</u> Contact Stud Boy Traction products at <u>www.studboytraction.com</u>. (176 stud's minimum are recommended for ice racing)

**Sway Bar:** .562" sway bar (#0617006 \*order from Race Dept.)

**Brakes:** Custom angled brake lever for stealth 88 master cylinder (#0818061 \*Order from Race Dept)



**Front torque arm:** Drill a new hole in the limiter straps 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"

<u>RTA tunnel mount enclosure:</u> Install enclosure to inside of tunnel at RTA mount. Refer to separate tech tip on this part. Part must be ordered directly from Polaris Race Dept. (#0818039 – Tunnel enclosure kit)

# **Suspension Springs:**

<u>IFS</u>: 125lbs/in coil over spring 10" x 2.25" I.D. (#7045096-458)

Front track: 125lb/in coil over spring 6" x 2.25" I.D. (#00818033 \*order from Race Dept.)

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

*Rear track*: 18lb/degree torsion springs at 95-degree preload. (Stock)

\*Optional rear torsion springs are available:

#7046316-329 – LH 20lb@95 degree and #7046317-329 – RH 20lb@95 degree #7046150-329 – LH 16lb@87 degree and #7046151-329 – RH 16lb@87 degree

## **Suspension spring preloads:**

IFS Springs: .500" preload on IFS springs

FT Spring: .125" to .250" preload on front track spring

RT Springs: Medium/Medium on torsion spring preload blocks

Rear coupling blocks: High position

Skis: Order skis from USI at <a href="https://www.usi-skis.com">www.usi-skis.com</a>
USI X2 triple threat stage 1 ski (#X2)
USI 301 high performance mount shoe (#po1-hpb)

or

Order skis from C&A Pro at <a href="www.caproskis.net">www.caproskis.net</a> XPT ski (#0420) (\*XPT skis are stock)
Mounting kit (#76000224)

<u>Venting:</u> Permitted Cross Country Factory 600 Venting: Additional venting is allowed on the 2025 Indy Cross Country sled. You must follow the Polaris Racing templates/directions exactly! No deviations will be allowed. To download the venting templates and directions visit the Polaris Snowmobile Racing website at <a href="https://snowmobiles.polaris.com/en-us/team-polaris/racer-resources/">https://snowmobiles.polaris.com/en-us/team-polaris/racer-resources/</a>. Go to the *Cross-Country* section.



<u>Data Acquisition:</u> Order SnoPro Kompact from Precision Auto Research (www.precisionautoresearch.com)

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

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

The Polaris Race Dept. has service manuals available for the MY25 Cross Country sled (#9941914). Contact Scott Wilczek at <a href="mailto:Scott.Wilczek@polaris.com">Scott.Wilczek@polaris.com</a> to order.

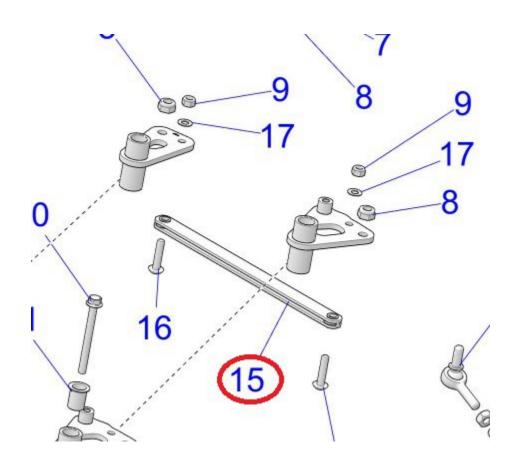
To order any of the Polaris Parts listed on this sheet contact Scott Wilczek at the Polaris Race Dept. 715-355-3008 or <a href="mailto:Scott.Wilczek@polaris.com">Scott.Wilczek@polaris.com</a>

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



# \*Attention Polaris 2025 600 Cross Country Racers

The MY25 600CC Race sleds have been built with the <u>standard</u> steering rack link #7061190. Number 15 in the below picture. Replace the standard steering link with the **Heavy Duty** steering rack link #7061308 that was shipped with the sled.





# Indy Cross Country 600 ICE IFS shock settings

Shock part number: 7046278/7046279

Oil side spacer: Total height of 2.300" (must be rebound adjustable shaft compatible! Available from Polaris Race Dept #0818042- shock internal spacer 2.1") use the stock .200" and race dept 2.100" to equal 2.300"

Piston: Gold 6 port, .052" bleed hole (drill out stock piston bleed to .052")

IFP height: 2.0" Nitrogen PSI: 200

1.500 x .120 plate

Jounce bumper: None, \*Remove jounce

Shock Extended length: 15.200"

Compression clickers: Low speed: 6 clicks out from stiff, High speed: 5 clicks out from stiff

Rebound clicker: 8 out from slow

Compression	Rebound
1.550 x 8	$1.300 \times 12$
1.550 x 8	1.200 x 10
.900 x 12	1.000 x 10
1.450 x 8	.700 x 8
1.300 x 8	.600 x 15
1.200 x 10	$.750 \times .060 (x3)$ washer
1.100 x 10	
.900 x 8	
.800 x 8	torque shim stack nut to 15ft/lbs.
.700 x 15	-



# Indy Cross Country 600 ICE Front Track shock settings

Shock part number: 7046308

Oil side spacer: 2.0"

Piston: Gold 6 port, .073" bleed hole

IFP height: 1.750" Nitrogen PSI: 150

Jounce bumper: STK .400" +.125" plate

Compression clickers: Low speed: 8 clicks out from stiff, High speed: 7 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 15
1.500 x .125 plate

# Rebound 1.300 x 8 .700 x 8 1.100 x 12 .900 x 10 .700 x 8 .600 x 15 .750 x .060 (x3)washer

torque shim stack nut to 15ft/lbs.



Indy Cross Country 600 ICE Rear Track shock settings

Shock part number: 7046309

Oil side spacer: 0

Piston: Gold 6 port, .042" bleed hole (Drill out stock piston bleed to .042")

IFP height: 2.0" Nitrogen PSI: 200

Shock Extended length: 16.550"

\*Replace stock shaft with (#0818021) custom short shaft (\*must order from Polaris Race Dept.) Compression clickers: Low speed: 6 clicks out from stiff, High speed: 5 clicks out from stiff

Compression	Rebound
1.550 x 10	1.300 x 10
1.550 x 12( <i>Ring Shim</i> )	.900 x 6
1.300 x 6	1.100 x 8
$1.550 \times 10(\mathbf{x2})$	.900 x 10
1.500 x .800	.700 x 10
1.300 x 8	.600 x 15
1.200 x 6	.750 x .060 washer
.900 x 6	
.700 x 8	
$.600 \times 15(\mathbf{x2})$	
1.500 x .120 plate	torque shim stack nut to 15ft/lbs.

\*1.550 x 12 *Ring shim* can be purchased from Walker Evans Racing (<a href="https://walkerevansracing.com/">https://walkerevansracing.com/</a>)
Part Number #WER-1800060

	Date										-			
	Location						*							
	Driver						4							
	Sled													
je	Class										<u>_</u> /			
Details	Class		Pract	ico		Heat 1			Heat 2			Final		
	Ambient temp F°		Piace	ice		ilea			TICA	. 2		ГШ	11	
	· · · · · · · · · · · · · · · · · · ·													
	Density Alt Track condition													
	ECU Curve													
ره ا		DD	EM	REG	D	REM	REG	DI	REM	REG	DI	REM	REG	
	Gauge setting Fuel Blend	PK	CIVI	REG	P	KEIVI	REG	PI	TEIVI	REG	PI	TEIVI	KEG	
Engine														
<u>ا</u>	Speed MPH Spark plugs & Gap													
-	EGT temp F°													
	Drive Belt													
	Belt length/Width	<u> </u>				,			,					
	Flyweight style		/			/			/			/		
ಶು	Total flyweight													
<b>⊒.</b>														
4	Added weight Spider shims													
Clutching	Engage/Peak RPM										,			
			/			/					/			
0	Primary spring Secondary spring													
	Helix													
	Top/Bottom gear											/		
	Skis/Toe out			/ "			/ "			/ "			/ "	
	Carbides			/						/			/	
	SwayBar													
	IFS shock valve #													
	Clicker settings	H-	L-	R-	H-	L-	R-	H-	L-	R -	H-	L-	R-	
	Spring rate				1									
	Preload													
	Oil side spacers													
ב	FT shock valve #													
	Clicker settings	H-	L-		H-	L-		H-	L-		H-	L-		
l C	Spring rate													
e	Preload													
S	FT arm height													
Suspension	RT shock valve #													
S	Clicker settings	H-	L-	R-	H-	L-	R -	H-	L-	R -	H-	L-	R-	
	Spring rate													
	Preload													
	Oil side spacers		•			•			•					
	Coupling blocks													
	Stud style													
	Stud count													
	Stud pattern													

Practice Comments: Heat 1 Comments: Comments Heat 2 Comments: Final Comments: