



2022 600R SnoX Race Prep List

1. Check engine coolant level and routing of overflow hose. **Some of the 600R sleds shipped without engine coolant!** Lift front of vehicle when bleeding coolant system.
2. Check chain case oil level
3. Check chain case chain tension (hand tight, then 1/2" turn loose)
4. Check drive belt deflection
5. Check for full open of throttle body assembly (Visually check throttle body butterflies are 90 degrees to bore)
6. **Check orientation of Belleville washer on primary clutch bolt (See page 3 for more information)**
7. Check steering rack/lower steering post is centered to upper post (adjust steering to drag link if necessary)
8. Adjust handlebar, riser block, throttle asm and brake master cylinder positions
9. Check steering post has free movement thru travel
10. Check ski alignment (1/4" to 1/2" toe out)
11. Check Alignment of primary and secondary clutch's (Alignment tool "Axys Race" (#AXYS19AL) is required, contact Scott.Wilczek@polaris.com at the Polaris Race Dept.)
12. **Install the 2 middle seat base bolts (They are in the sleds parts bag)**
13. **If your sled was shipped without a seat it will be shipped separately along with the seat hardware.**
14. Install the "Optional" resonator to over structure mounting bolt and steel (Gold color) bushing. Before installing clean up internal threads with M8x1.0 tap (Bolt & Bushing are in the sleds parts bag)
15. **Align track and adjust tension** (raise rear of sled and measure tension where there is the most drop in the track, adjust until top of track drive cog is flush with bottom of hyfax)
15. Check brake line routing path
16. Check all electrical wiring routing/connections. ****Apply a small amount of dielectric grease (NYOGEL 759G) to all electrical connections***
17. Verify teether connection to chassis connection is plugged all the way in. Verify teether system functions
18. Silicone throttle cable tab into throttle lever
19. Silicone belly pan to chassis. The right-hand fender was installed at the factory with-out silicone to chassis
20. Silicone plenum (air intake under hood) to hood
21. Silicone and/or install closed cell foam to seal headlight to hood
22. Radius 90 deg edge on outside of throttle block
23. Move throttle lever pin washers to underside of lever. Verify C-clip is installed securely onto pin
24. Check/Set IFS coil spring preload to 1/2" (with ski's off the ground)
25. Grease inside of lower limiter straps to allow smooth pivoting action of limiter strap on lower cross shaft. **Use an O-ring safe grease on this area only**

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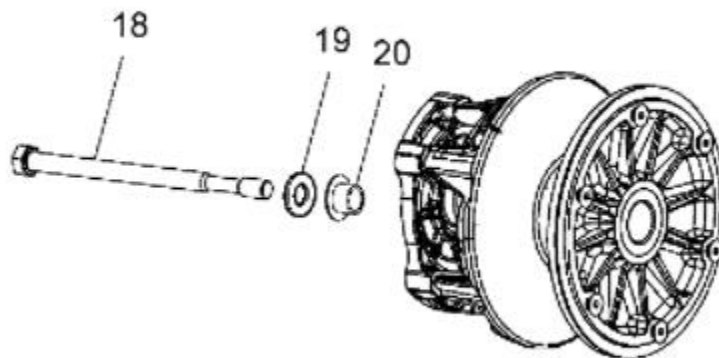
26. Check/Set preload of front track coil over spring (1/4") with limiter straps in place
27. Safety wire front track spring clip to shock shaft eyelet to prevent spring clip from moving or coming off
28. Set rear torsion spring preload to High/Medium (doesn't make a difference which side is on High)
29. Replace stock kill switch with push button kill switch (#4010311)
30. Red Loctite and torque upper a-arm to spindle bolt/nut (65ft-lbs)
31. Red Loctite and torque rear suspensions FTA to tunnel bolt/nut (60ft-lbs)
32. Red Loctite and torque rear suspensions RTA to tunnel bolt/nut (60ft-lbs)
33. **Install screen over recoil cover. (See page 4 for more information)**
34. **Check Secondary Clutch has correct "Small Rollers and Helix" installed. (See page 5 & 6 for more information)**
35. Install snow flap straps/plastic center piece that meets ISR rules for competition (www.isrracing.org). Polaris Tech tip available at Polaris Racing Resources website (<https://snowmobiles.polaris.com/en-us/team-polaris/racer-resources/>)
36. When studding the track, the maximum number of studs allowed is 108. The recommend starting point for stud quantity for ISOC Nationals via standard double Super light backers or standard Pro Series backers (**Not *Plus series**) is 54. For CSRA, ECS and Reginal tracks where there is more ice the suggested stud quantity is 108 studs via double standard Super light backers or standard Pro Series backers (**Not *Plus series**). Contact Stud Boy (<https://studboytraction.com/>) for optional stud patterns.
37. **Sunoco Surge fuel (105 Octane) should always be used**
38. It is recommended to install bulkhead reinforcement braces from Rox Speed FX. (<https://roxspeedfx.com/>)
39. For data acquisition equipment contact Precision Auto Research at (http://www.precisionautoresearch.com/ECU_DATA/SnoPro/PAR31.htm). The recommended Data system is the "Kompact".
The Polaris Race Dept. has a mounting plate for installing the Kompact onto the 600R sled (#0818028). Contact Scott Wilczek at Scott.Wilczek@polaris.com to order.
40. The Polaris Race Dept. has a side panel strap kit available for tool free side panel removal (#0818004). Contact Scott Wilczek at Scott.Wilczek@polaris.com to order.
41. Extra venting is allowed in all stock SnoX classes. Visit the "Racer Resources" website <https://snowmobiles.polaris.com/en-us/team-polaris/racer-resources/> and go under "SnoCross" to download the ISR approved document for permitted venting.

For updates throughout the race season visit the Polaris Racing "Racer Resources" page at <https://snowmobiles.polaris.com/en-us/team-polaris/racer-resources/>

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****Attention Polaris 2022 600R Racers***

The Belleville washer (#19 in below picture) on the primary clutch bolt may have been installed backwards at the factory. Remove the primary clutch bolt and verify correct orientation of the Belleville washer. The domed side outwards towards the bolt head. Re-install and torque the primary clutch bolt to 55ft/lbs. Run the sled on a jack stand and then re-torque the bolt to 55ft/lbs.



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****Attention Polaris 2022 600R Racers***

The Polaris Race Dept recommends install a recoil cover screen on the 600R to keep debris from entering the flywheel and stator. **This screen is only available directly from the Polaris Race Dept.** Contact Scott Wilczek at Scott.Wilczek@polaris.com to order.

Part number #818037 – Recoil Cover Screen



POLARIS RACING

****Attention Polaris 2022 600R Racers***

Some of the 2022 600R SnoX sleds may have been built with Large Rollers and Helix in the secondary clutches. The correct spec is for the secondary clutch to have the Small Rollers and Helix. To determine which rollers are in your 2022 600R remove the 4 torx bolts and helix from the secondary clutch. The correct Small Rollers will have a diameter of .933" and the Large Rollers will have a diameter of 1.135". If your secondary clutch has the Large Rollers and Helix please contact Scott Wilczek at the Polaris Race Dept. Scott.Wilczek@polaris.com.

****It will **not** cause damage to drive the snowmobile with the Larger Rollers and Helix installed***



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Follow the below Process to replace Large Rollers and Helix in Secondary clutch with the Small Rollers and Helix

- 1.) Remove the drive belt
- 2.) Remove Secondary clutch from snowmobile
- 3.) Remove the 4 T27 torx screws from the helix, (apply a small amount of heat to the helix screws to loosen the factory Loctite)
- 4.) Install the clutch in a clutch compressor fixture
- 5.) Wearing eye protection, carefully compress the roller assembly to gain access to the snap ring. Remove the snap ring
- 6.) Slowly release the fixture arm to remove the roller assembly and spring.
- 7.) Remove C-clips from roller assembly studs
- 8.) Replace Large Rollers with Small Rollers
- 9.) Install C-clips back onto roller assembly studs
- 10.) To assemble the clutch, slide the components back on to the stationary sheave shaft.
- 11.) Align the notch in the roller assembly with row of double splines on the shaft. Slowly compress the spring and roller assembly down on to the shaft. Install the snap ring making sure it is fully seated in the groove
- 12.) Install the small roller helix by aligning the rollers with the ramps for the 70/44-.46.
- 13.) Install and torque helix fasteners to 11-13 ft-lbs
- 14.) Install clutch to the jackshaft and torque driven clutch bolt 17 ft-lbs
- 15.) Install drive belt



Details	Date												
	Location												
	Driver												
	Sled												
	Class												
		Practice			Round 1			Round 2			Final		
	Ambient temp F°												
	Density Alt/ Baro	/			/			/			/		
	Data Acquisition #												
Engine	ECU Map												
	Hotstart Temp												
	Coolant Temp												
	Fuel Spec												
	Oil-oil ratio												
	Spark plugs												
	Spark plug Gap												
	Holeshot EGT												
	Race Track EGT												
Clutching	Drive Belt												
	Belt length/Width	/			/			/			/		
	Flyweight style												
	Total flyweight												
	Added weight												
	Spider shims												
	Engage/Peak RPM	/			/			/			/		
	Primary spring												
	Secondary spring												
	Helix												
	Top/Bottom gear	/			/			/			/		
Suspension	Skis												
	Toe out												
	IFS shock valve #												
	Clicker settings	H-	L-	R-	H-	L-	R-	H-	L-	R-	H-	L-	R-
	Spring rate												
	Preload												
	FT shock valve #												
	Clicker settings	H-	L-	R-	H-	L-	R-	H-	L-	R-	H-	L-	R-
	Spring rate												
	Preload												
	FT arm height												
	RT shock valve #												
	Clicker settings	H-	L-	R-	H-	L-	R-	H-	L-	R-	H-	L-	R-
	Spring rate												
	Preload	/			/			/			/		
	FT coupling blocks												
	RT coupling blocks												

Comments

Practice Comments:

Round 1 Comments:

Round 2 Comments:

Final Comments:

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2022 Race Season Suspension settings	
Race Track Location:	
Racer of snowmobile:	
<u>IFS suspension</u>	
Valve Code:	IO5 (STK)
Oil Side Spacer:	0
Spring Rate:	250lbs (STK)
Spring Preload:	.500"
High speed comp:	16
Low speed comp:	12
Rebound:	6
<u>FT Suspension</u>	
Valve Code:	CO16 (STK)
Spring Rate:	125lbs (STK)
Spring Preload:	.250"
High speed comp:	20
Low speed comp:	20
Front arm length:	7.500" (STK)
<u>RT Suspension</u>	
Valve Code:	RO15 (STK)
Oil Side Spacer:	0
Spring Rate:	Trap 30's (STK)
High speed comp:	16
Low speed comp:	12
Rebound:	3
Front Coupling block:	High
Rear coupling block:	Medium
Lower Torsion Hanger:	"A"
Torsion block setting:	MED/MED
Comments: All Skid/Tunnel holes in "A" hole position .250" to .500" toe out	
* These are the stock MY22 600R settings	