



KING-AIR™

RIDE EVALUATION

*There's a whole new
levels of excitement in sledding
with our Sensational New Suspension!*

After two full years of **KING-AIR™** development what has TeamFAST done to makes it such a premium ride compared to the OEMs best?

Just everything that's Critical!

1) New Wave Damping Strategies

at the skis and rear suspension. The shocks blend our new **Gated Damper Stages** with the full potential of de Carbon style dampers. Our airshock force curves are staged and segmented to match the extremely wide variety of trail bumps snowmobiles encounter. They fully....eliminate..... the need for the weighty and complex rockers and links OEMs use to create progressive mechanical movements.

2) More travel where you need it.

King-Air has more ski and rear stroke. Especially at the critical front arm position, coupling these assets to the extra 4" of travel space in the ETT™ kicked tunnels of Viper, Sidewinder or Arctic Procross™ chassis and there's never been a more superior trail riding platform.

3) **Maximized Stroke** - Diverging from the norms, we try to maximize travel over each bump. If its 4" we try to displace 4", if its 10" we strive for 10". While our over-couple geometry performs major portions of work our new Gated Damper Stages are the powerful end game of bump absorption

4) Superior Developments

Our history of free thinking suspension development has led all the others.

We pour every bit of our experience into each suspension we build. History has proven our ride to be **SUPERIOR!**



Now....In 2020 you can easily make one of the biggest improvement in your sledding life!

KING-AIR™

- With the ***KING-AIRS*** air ski shocks complimenting the rear suspension your sled becomes the greatest riding trail sled money can buy.
- Easiest install ever - On Yamaha SRV/SRS or A/C Procross chassis you just drill two 3/16" pop rivets out to 10mm and you install. Just 1.25 hours in your garage and you can be out enjoying sledding likenever-before!



Comments & concerns addressed

KING-AIR™

The Media are our industry's public experts and many sledders use their expertise to help gauge their buying decisions. We had the opportunity to get out and ride with two of our sports finest on the very same trails on separate rides. Both rides were on one of Minnesota's finestthe C.J. Ramstad / North Shore State Trail. The tests were made on well ridden trails that ranged from smooth to pounded out. They were asked to bring their favorite bump eating trail sleds. They were to be compared against a King-Air equipped 2014 Yamaha Viper RTX. The results of those rides from TeamFAST's records of the test are described over the next pages



Pat Bourgeois – Editor MSPN Magazines. Has written for some of our industry's best publications known for his wit and knowledge. Having a special commitment to speak to our young sledders, aiming his articles and clever style directly at them. He's a master of the trails.



Test 2 Journalist– John Prusak, Editor SnowGoer Magazine. Experienced writer about our sport, its people, our trail system and our equipment. John has always had an eye on our overall industry health and the nature of our sport. He's also a master of the trails.

Two of the favored sleds they brought to compare against the **KING-AIR™** equipped **2014 VIPER**



Industry EXPERT Comments

KING-AIR™

Here is a compilation of some of the sensational QUOTES we are proud of spoken by our two experienced and respected journalists. In our first test we compared the ***KING-AIR™*** equipped 2014 Viper RTX with a 2019 Polaris 800 XC™ equipped with top of the line Walker Evans™ on all four corners. In the second test we compared our upgraded Yamaha Viper™ with a 2019 Ski-Doo Renegade™ X-RS 900 Turbo™ equipped with KYB PRO SHOCKS™ race shocks.

Pat Bourgeois said : ***"Wow....this is really different....this is really-good"***

Editor MSPN : ***"It's like a bias ply tire versus a radial... simply no comparison"***

: ***"Excellent truly excellent"***

: ***"I've been watching those A-Arms move, I've never seen a front-end stroke like that, those things really eats the bumps"***

: ***"Wow....unbelievable"***

: ***"This is like cheating, truly amazing"***

: ***"The goodness of the King Air is possibly the biggest game changer in the industry since the REV"***

Randy Holland said: ***"We spent the year riding these great sleds like the SRX and Indy XC 800 thinking they were great & this King Air totally destroys***

Super Sledder ***anything else I've ridden"***

: ***"They sell us the Polaris for \$14K tell us we've got the best suspension money can buy and until today we believed them, why can't they come like this"***

John Prusak said : ***"I can't believe it.... riding from smooth to tough-rugged chop we could charge harder on the King-Air/ Viper. I was in more control and***

Editor SnowGoer ***rode with significantly less discomfort than I could on the 2019 Ski-doo X-RS 900™....how can that be"***

: ***On the rMotion™ - "we needed to adjust our speed more on the trail, worry about our timing in choppy corners and the sled wandered more in the stutters. Suddenly the rMotion about which we had previously raved.....felt mortal"***

: ***"Overall we were awestruck by the TeamFAST design"***

EXPERT RIDER PERFORMANCE EVALUTATION - March test's on Minnesota's CJ-Ramstadt State Trail, the State's snowiest and favorite trail winds through the North Shores of Lake Superior. It features hundreds of corners tight to wide that ramble through flat open areas to thickly wooded and scenic hill country. Test conditions ran from smooth to well used Sunday afternoon conditions.

2019 Polaris Indy XC 800 - Featured its new PRO-CC™ suspension along with top of the line Walker Evans™ at all four suspension points. The sled worked well in 3-6" stutters and unevenly spaced larger/separated bumps. It performed noticeably better in stutter than the Rush style skids but as the stutters grew in size from 8" on up or when the peak to peak spacing tightened up feedback increased. Relative to bump size and or frequency the feedback would escalate. Climbing from slight to uncomfortable and on up to harsh. In those conditions the sled's suspensions did not recover stroke quickly enough to achieve adequate travel to isolate its rider from repetitive bump inputs. The cornering of the sled was good in conditions ranging from smooth hardpack to middle bump conditions but as the evening's cold arrived the medium to rough corner bumps got harder and the skis started to rattle while darting increased. As stutter bumps firmed up or frequency increased riders shied away from the PRO-CC and joined in wrestling other testers off the King-Air equipped Viper RTX.

2019 Ski-Doo Renegade X-RS 900 Turbo – Featuring the Ski-doo R-Motion™ equipped with X-RS package featuring KYB Pro Race Shock. This sled had similar band width to its ride as the Polaris with suitable isolation in small to medium stutters that fell of as bump frequency and size increased. If large stutters were encountered and they were separated by sufficient spacing the sled worked well. It too showed its limitations as spacing decreased and size increased. The repetitive nature of these stutter bumps fatigued the rider. It too showed an inability to extend quickly enough to isolate the rider from the next bump's peak energy. That energy came in joltingly through the hands and feet causing its riders to reduce speed trying to regain isolation as the Sunday afternoon trails ground on. The ski suspension was reasonably quiet when driven at moderate speed but tended to push over the tops with less predictability in bumpier corners, especially as bumps firmed up and speeds increased. This required excess bars work to maintain control. Again like the Polaris, its isolating qualities were good within a specific range of bumps but displayed far less capability as bump frequency, size and firmness increased.

2016 Viper RTX featuring **King-Air™ rear suspension with Assault Ski Airshocks.** The sled isolated its riders with great superiority in the 6"- 18" trail bumps, delivering much lower levels of bump energy to its riders through the bars, running boards and seat. Riders were able to remain seated in the straights and while cornering. This resulted in much quicker cornering with riders driving right through the small to large corner bumps allowing harder acceleration out of each corner. Riders on the other sled's were unable to keep up to the King-Air/Viper as those riders tended to stand up and swing wide while cornering in attempting to avoid larger bump energies. The KING-AIR's arms extended more effectively providing a superior stroking feeling providing better isolation in both the high frequency and large trail bumps encountered. The damping delivered near zero bottoming and displayed zero over-quick rebounding in the two days of testing. Our journalists brought top of the line trail sleds for the comparison and throughout the tests those sleds trailed miles behind the 2014 Viper equipped with its KING-AIR and Assault Ski Shock.

Questions & concerns addressed

KING-AIR™

1. When the trail market is migrating to as much as 146' skids why should someone stay with a 129"?
 - *Because those 136-146" suspension don't begin to ride or corner as well on trail as the KING-AIR equipped snowmobile. Additionally its rear skid and ski shock package weights as much as 15 lbs less than OEM.*
2. How do you explain why the **Assault Air Shocks** ride better than the industry's high-end Coil Over Shocks?
 - *The KING-AIRS airshocks use what we call new wave damping technology. This aids us in our mantra to deliver inch for inch travel on every bump (1" of stroke on a 1" bump). We fluidly stroke more on each bump and our Gated Damper Stages nearly eliminate rear bottoming and too quick suspension return.*
 - *Assault's rolling airsprings generate a smooth progressively sloped force curve. Delivering a more appropriate spread of biasing that sleds needs to isolate their riders while resisting bottoming.*
 - *KING-AIRS airspring force curves can't be matched with metal air springs, coil or torsion metal springs.*
 - *The Assault shock/airspring provide the most fluid and controlled stroke feeling in the industry. With lower initial through medium stroke impact resistance while delivering good big bump capacity.*
 - *When the Assault shocks qualities are combined with the KING-AIRS parallelogram couplers the resulting trail comfort and control are unmatched by any OEM or aftermarket system.*
 - *Like most others, the KING-AIR offers a nice ride when the trails are smooth but when the trails start to rough-up, they absolutely rule over all current offerings !*

Simple Mods to implement in standard Yamaha SRV/SRS or the Arctic Procross chassis

- 1) Use 3/16 drill bit to remove one existing pop rivet on each side of rear chassis & follow it with a 10.25mm drill for the Rear Arm Mount Bracket. See pic below
- 2) Uses single keels ski first year Viper ski or A/C ski with dual staggered A/C runner
- 3) Add an 8 degree wedge under tail of both ski-rubbers

Existing 3/16 rivet drilled out
And replaced by 10mm bolt



optional air hose exit

129" **KING-AIR** Rear Suspension = \$1958
137" **KING-AIR** Rear Suspension = \$2028
18.5" **ASSAULT SKI SHOCKS** = \$689

