



THE ALL-NEW
900 FUSION™



POLARIS



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Fifty years ago when Polaris began, people worked hard for themselves and their families, but knew getting out to recharge was important, too. It's time well spent that can shake off a week's worth of work and let the entire family have fun. Polaris gave them The Way Out in exhilarating new forms. Our machines inspired people, and discovering so many others shared our enthusiasm inspired us.

People still work hard, and Polaris keeps adding exciting new products, from the snowmobiles we first invented to ATVs, RANGER off-road utility vehicles, Victory® motorcycles, personal watercraft, sport boats, Professional Series Workmobiles®, and Pure Polaris® parts, apparel and accessories. Each Polaris machine is a sleekly designed reminder of The Way Out, bearing our name with the perfect measure of serious design and well-earned fun.

Polaris Industries has grown to include extensive support. Our large dealer network provides everything from customer service to financial services, so any assistance you need is never far away. At Polaris, we know our hard work pays off. We hope our machines remind you that yours does, too. Polaris. The Way Out.

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THE ALL-NEW 900 FUSION™



WE BELIEVE.

A SLED IS NOT DONE UNTIL IT STIRS SOMETHING DEEP IN THE PIT OF YOUR STOMACH. VELOCITY IS INDEED A VIRTUE. AND POWER WITHOUT CONTROL IS POWER WITHOUT PURPOSE. THESE ARE OUR PRINCIPLES. WE'VE DEDICATED OURSELVES TO STAYING TRUE TO THEM. AND IN DOING SO, BUILT A MACHINE UNLIKE ANY OTHER TO EVER WEAR THE POLARIS NAME.

THE ALL-NEW **900 FUSION**



NEW IQ™ REAR SUSPENSION – WHEN IT COMES TO CONFIDENCE AND COMFORT, CONTROL IS EVERYTHING

No other component plays a more direct role in rider confidence and comfort than the rear suspension. Which is why the new IQ Rear Suspension has been designed to be equally as intelligent as the front, and is based on over a decade of our industry-leading long-travel designs. In an environment of snow, ice and cold, where conditions can change in the blink of an eye, control of suspension dynamics is crucial in delivering optimum rider comfort. To accomplish this, the IQ Rear Suspension features an all-new rail coupled with leading-edge materials that result in a 10 pound reduction in unsprung weight. This allows the IQ suspension to react quickly to even the smallest bumps, ensuring a smooth, responsive and predictable ride. New torque arms feature improved geometry that maximizes weight transfer and acceleration. And new progressive-rate shock linkage works in harmony with the fully coupled rail, optimizing control of 22" of rear travel. A gas-charged front-track shock and a new Fox® PSS Position Sensitive rear-track shock combine to control the ride like never before. The Fox PSS even features increased volume to virtually eliminate fade, while still delivering a smooth ride in the critical "ride zone." It firms up instantly over large moguls to resist bottoming. In addition, we've repositioned the rear wheels to minimize noise and tyfax wear.



ACCU-TRAK™ 2 SKIS

Skis are the critical link between machine and terrain. It's a relationship so important that we made our best even better. Our Accu-Trak 2 skis feature dual carbide runners positioned on a deep center keel. Combined with our new high-tech IQ spindle and front-end geometry, steering effort has been significantly reduced. The result is complete confidence, precision and control with virtually no darting. Knowing some riders are more aggressive than others, the Accu-Trak 2 also accepts a single runner carbide, giving our most responsive ski an even more potent bite. Accu-Trak 2 skis are also 15 pounds lighter than our previous performance skis, which means less unsprung weight for improved suspension performance and quicker reactions to what the trail dishes out.

THERE IS NO CUTTING CORNERS WHEN IT COMES TO CUTTING CORNERS.

AT POLARIS, WE UNDERSTAND RIDERS DREAM OF A MACHINE THAT HANDLES LIKE ONE. AND DELIVERING SUCH A SLED IS NOT ACCOMPLISHED BY TAKING SHORTCUTS, NO MATTER HOW CONVENIENT. SO WHEN IT CAME TIME TO CONSTRUCT A CHASSIS FOR THE NEW FUSION, WE TOOK THE TIME. WE STUDIED. WE BUILT. WE TESTED. WE DID WHATEVER IT TOOK. AND WE MADE IT RIGHT.

THE NEW IQ™ FRONT SUSPENSION – BECAUSE FOLLOWING IS NOT AN OPTION

After decades of building and refining the industry's most renowned and respected front suspensions, change for the sake of change was unacceptable. So when we designed the new IQ Front Suspension, we never lost sight of where we've been. Featuring a patent-pending Variable Caster design, the new IQ suspension has inherited many of the traits that made Indy® the benchmark of comfort and control. Point and shoot the new Fusion down a mogul-littered trail, and you'll quickly understand. As the suspension travels through its range, caster angle increases, resulting in unmatched stability, even through unpredictable terrain. A triangulated mounting design affixes the control arms to the bulkhead on a canted plane, similar to automotive racing applications. The result is a design that is lighter, yet stronger in critical locations. This design allows us to mount the upper and lower control arms on a nonparallel axis for less bottoming and added strength. True Progressive Motion Ratio shock geometry controls this intelligent suspension with unmatched dampening capabilities. But whether you're skimming across an endless sea of chatter bumps, negotiating an ungrooved trail or enjoying a leisurely afternoon ride, the new IQ Front Suspension delivers the smoothest ride in the industry with less bottoming.





THE NEW LIBERTY™ 900 ENGINE – POWER WITH PURPOSE

Nothing stirs the soul of a snowmobiler more than pure, unadulterated power. Yet power without control and purpose is nothing more than wasted energy. So our all-new Liberty 2-stroke 900 engine features Cleanfire™ Injection and redefines ultimate trail acceleration. This purpose-built, high-displacement twin features a long-stroke, high-torque design to deliver maximum corner-to-corner grunt. Because of its impressively broad torque curve, the Liberty powerplant is smooth and responsive, with unsurpassed power delivery from idle to redline. With its forward intake and exhaust design, the cylinders are canted back towards the rider 22° and the entire engine is mounted low and in perfect harmony with the IO chassis.

TECHNOLOGY TURNS INTO QUALITY

Before any Polaris engine gets near an assembly line, we go to great lengths to ensure it's ready for the rigors it will face beyond the factory doors. So during the design phase of the Liberty 900 engine, we incorporated a process called CFD, or Computational Fluid Dynamics.

A marvel of modern powertrain technology, CFD is a sophisticated computerized tool that simulates coolant flow within an engine design. The computer differentiates open flow areas from obstructions. Engine functions like coolant velocity and heat transfer rates get perfected this way, ensuring the highest quality design of critical components.

GOOD THINGS COME IN POWERFUL PACKAGES.

PURE, MASSIVE POWER. THAT'S WHAT IT'S ALL ABOUT. SO WHEN WE BUILT OUR NEW ENGINE, WE MADE IT A PRIORITY TO LET THE RIDER FEEL THE BEAUTY OF BIG, SMOOTH, RESPONSIVE INTERNAL COMBUSTION ALL THE WAY TO THEIR SOUL. THE KIND THAT PERFORMS EVERY TIME YOU GET ON THE THROTTLE AND OPEN IT UP. INTRODUCING THE ALL-NEW LIBERTY 900 WITH CLEANFIRE™ INJECTION.

CLEANFIRE INJECTION FOR SMOOTH, EFFICIENT POWER DELIVERY

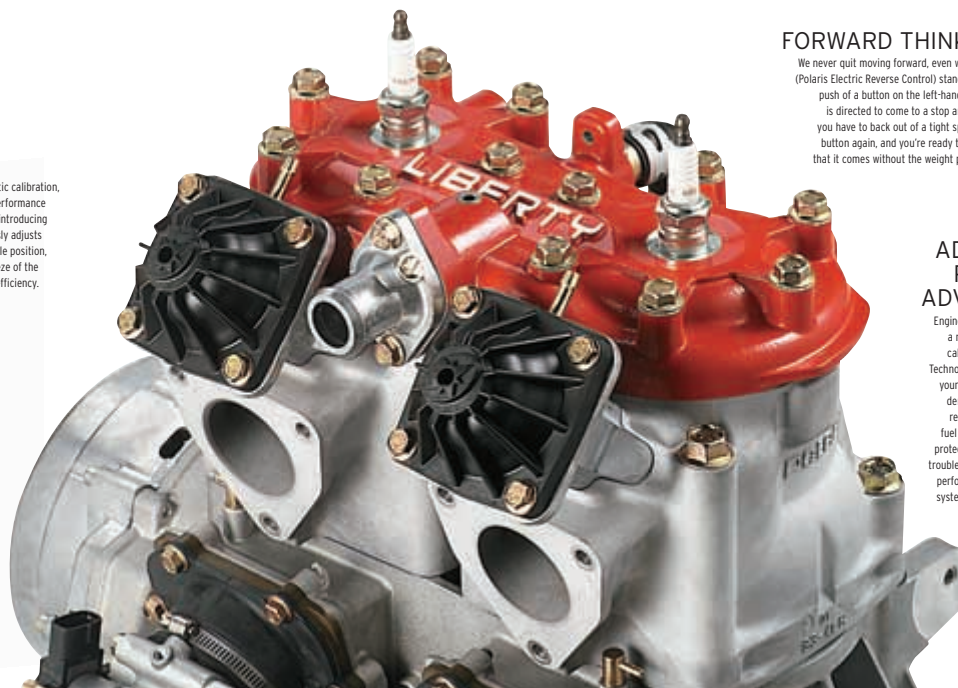
The future of power has arrived. Introducing Cleanfire Injection from Polaris. Instantaneous throttle response, automatic calibration, easy chokeless starting, improved fuel economy and maximum power. If it sounds like the ultimate snowmobile performance package, that's because it is. Cleanfire Injection features a batteryless injection system with dual injectors introducing a fuel charge directly into the crankcase. A sophisticated fuel management system continuously adjusts the charge based on a wide range of dynamics including engine speed, throttle position, temperature and altitude. You reap the benefits by a simple squeeze of the throttle with crisp response, peak power and better fuel efficiency.

FORWARD THINKING IN REVERSE

We never quit moving forward, even when it comes to reverse. So we made PERC® (Polaris Electric Reverse Control) standard on the new 900 Fusion. With the simple push of a button on the left-hand control block, the advanced Liberty engine is directed to come to a stop and restart in reverse. Perfect for times when you have to back out of a tight spot, off a trailer or out of a garage. Push the button again, and you're ready to hit the trail. But the real beauty of PERC is that it comes without the weight penalty of conventional mechanical systems.

ADVANCED ENGINE PROTECTION FOR ADVANCED ENGINES

Engines as advanced as the new Liberty 900 need a management and protection system of equal caliber. Enter our latest Detonation Elimination Technology (DET™) system, dedicated to protecting your engine from bad fuel and other unexpected demons. When the engine-mounted DET sensor recognizes detonation, the ignition timing and fuel calibration will automatically be adjusted to protect the engine from potential harm. When the trouble no longer exists, the DET system will return performance calibrations to normal. The new DET system quietly goes about its business of making sure you enjoy years of trouble-free riding.





50TH ANNIVERSARY 900 FUSION

There's been a lot of snow shredded over the last fifty years, thanks to Polaris Snowmobiles. So we built a line of sleds to let you do it like never before. The 50th Anniversary 900 Fusion comes with commemorative colors and graphics. During Snow Check™ Select you can upgrade this model with premium High-Pressure Gas shocks plus a limited-edition gauge with altimeter and air temp display. That's the way fifty years was meant to be celebrated.

BRILLIANT HEADLIGHT DESIGN

Pumping out pure white light onto the night's snow-covered trail, the new Fusion headlight is not only the brightest we've ever produced, it is also the most intelligent. Packaged in a stylish and aggressive four-bulb case with a wraparound lens and chrome reflectors, the Fusion headlight features two high-powered halogen bulbs for optimum trail projection, plus twin Snow Beams™ that illuminate immediately in front of the machine. Together, they deliver outstanding vertical and horizontal lighting. The wraparound design of the headlight and clear-lens taillight provide side-lighting and reflectivity for increased visibility and safety. Additionally, you can quickly adjust where all this light is aimed – right from the seat, thanks to an easy-to-use dashboard-mounted rotary dial.



SCRUTINIZE EVERYTHING. OVERLOOK NOTHING. THAT'S THE ONLY WAY TO GET TO PERFECT.

FROM DAY ONE OF BUILDING THE NEW FUSION, WE COMMITTED OURSELVES TO MAKING THE BEST PURPOSE-BUILT PERFORMANCE SLED. SO NOTHING WENT OVERLOOKED. WE CONSIDERED EVERYTHING, ALL THE WAY DOWN TO THE SMALLEST RIVET. AND ALL THROUGHOUT THE DEVELOPMENT PROCESS, WE STAYED STEADFAST IN OUR ATTENTION TO DETAIL. WHEN YOU PAY THAT MUCH ATTENTION TO THE PARTS, THE SUM BECOMES THAT MUCH GREATER.

INFORMATION AT THE PUSH OF A BUTTON

A snowmobile packed with as much technology as the all-new 900 Fusion needed a gauge equally capable and loaded with information. See for yourself. Without taking your hands off the grips, you can change the dual digital/analog multi-function display. From the left-hand control block toggle switch, you can keep tabs on fuel level, engine temperature, and max speed and rpm recall. The gauge also features dual trip meters and an hour meter, and switches to metric with the push of a button. Plus you can switch between two dynamic backlit colors.



BUILT UPON THE PREMISE THAT EVERYTHING HAS A PURPOSE

Innovation guided us in making the purpose-built Fusion. Designs were scrutinized and continually enhanced to ensure the end result was the best performance trail snowmobile ever built. Even in the details, you'll find innovation. Slip down to where the rubber meets the snow, and you'll find integrated tunnel/stud wear strips pressed directly into the aluminum. The wrap-under-designed front nose pan provides added bulkhead protection. And when you grab hold of the front bumper, you'll notice it fits your hands perfectly.

A PLACE FOR EVERYTHING

Fusion delivers beyond performance too, thanks to integrated and lockable storage. Each sealed compartment is perfect for bringing along extra gear, water, snacks or whatever else you may need to keep dry and secure. There's even a 12-volt accessory outlet in the right-side console storage compartment to keep your GPS or cell phone fully charged. Access to key components was also considered, so we developed removable side panels for quick and easy access to the engine, chaincase and clutching. Even if for no other reason than to simply marvel at the technology.

OPTIMUM COOLING FOR CONFIDENCE AND PERFORMANCE

Riding in extreme conditions is just part of the experience, so we developed a patent-pending cooling system to perform regardless of whether or not Mother Nature cooperates. A unique three-part cooling process ensures our new 900 Liberty engine operates at optimum temperatures even in dreaded low-snow conditions. First, coolant is routed through our Perimeter Cooling System, which not only delivers great cooling, but also provides ice- and snow-free running boards for surefooted grip. Second, a new rear cooler that incorporates a turbulated coolant flow design bolsters cooling efficiency by as much as 50% at low engine speeds, and is integrated to add rear-tunnel strength. Finally, a radiator located in the front cowl delivers cooling performance even in lean snow conditions.



900 FUSION TECHNICAL SPECIFICATIONS – 2005

MODEL NAME	900 Fusion	900 Fusion (50th Anniversary)
DIMENSIONS		
OVERALL LENGTH (IN.)	105	105
OVERALL WIDTH (IN.)	47	47
OVERALL HEIGHT (IN.)	51	51
50 CENTER DISTANCE	45.5	45.5
FUEL CAPACITY (GALLONS)	10.0	10.0
ENGINE AND DRIVE TRAIN		
ENGINE TYPE / COOLING	Liberty / Liquid	Liberty / Liquid
CYLINDERS / DISPLACEMENT (CC)	2 / 866	2 / 866
BORE & STROKE (MM)	83 x 80	83 x 80
IGNITION	Digital Ctr w/ TPC, WLS, ECI	Digital Ctr w/ TPC, WLS, ECI
EXHAUST	Silenced controlled VCL Single Pipe	Silenced controlled VCL Single Pipe
FUEL SYSTEM	Clearflex Hydroflex	Clearflex Hydroflex
DISC BRAKE TYPE	Phantom Hydraulic	Phantom Hydraulic
DRIVE / BRAKE CLUTCH	P-45 / TEAM® Rubber	P-45 / TEAM® Rubber
SUSPENSION		
FRONT SUSPENSION	10	10
FRONT TRAVEL (IN.)	10	10
FRONT SHOCKS	Hydro FX High Pressure Gas	Proton High Pressure Gas
SKI TYPE	Acco-Ride 2	Acco-Ride 2
REAR SUSPENSION	10	10
REAR TRAVEL	12	12
FRONT TRACK SHOCK	Hydro FX High Pressure Gas	Proton High Pressure Gas
REAR TRACK SHOCK	Tek TPC Position Sensitive	Proton High Pressure Gas
TRACK WIDTH / LENGTH / HEIGHT (IN.)	15 x 103 x 1	15 x 103 x 1
FEATURES		
ELECTRIC START	Y&A	Y&A
REVERSE	FOC	FOC
SPEEDOMETER / MAX. SPEED RECALL		
TACHOMETER / MAX. RPM RECALL		
FUEL GAUGE	Multi-Function Display	Multi-Function Display
DUAL TRIP METERS		
TEMP PROFLX / LOW OIL LIGHT		
12 VOLT DC OUTLET	Accessory	Accessory
HAND & THUMB MARKERS	52x Adjustable	52x Adjustable
HEATSIS	Accessory	Accessory
SKI TIE	10 Fusion	10 Fusion
REAR BACK / FIRM HITCH	Accessory	Accessory
COLOR / GRAPHICS (S)	Black	50th Anniversary Blue
COLOR / GRAPHICS (C)	July Red	N/A
COLOR / GRAPHICS (D)	50th Anniversary Blue	N/A

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PERFECTLY INTEGRATED FEATURES TAKE THE RIDER TO A NEW LEVEL

The ultimate snowmobile experience goes beyond mere physical control. It's a complete integration of you and your machine. To accomplish such symmetry, the smallest details cannot be overlooked, which is why every contact point of the new Fusion has been engineered to be an extension of the rider. Running boards feature integrated grips. Toe hooks are perfectly contoured to fit the tops of your boots. Footrests are angled for ideal comfort and control. Handlebar angle and height are optimized. Grips have been formed and knurled. Console and gauges are positioned for optimum visibility. And the list goes on. It all adds up to a snowmobile that allows you to focus on the most important thing – the ride.

MASS IS CENTRAL TO ULTIMATE CONTROL

When it came time to design the all-new IQ chassis, understanding where to put the weight was as important as how much it weighed. It's a design concept called mass centralization, and it dramatically impacts how a snowmobile rides and handles. Take the new Liberty 900 engine, for example. Thanks to a forward exhaust and intake configuration, the cylinders are canted back toward the rider 22° and the entire engine is mounted low and in perfect harmony with the new IQ chassis. A new fuel tank hugs the bulkhead and tunnel, resulting in a large percentage of the fuel carried low in the vehicle. And our industry-exclusive Rider Select™ steering dramatically positions rider mass in optimum relationship to the snowmobile – based upon rider preference. In fact, every bracket, fastener and component was carefully scrutinized and designed to meet specific mass centralization goals. The result is a perfectly balanced snowmobile that reacts quickly with razor-sharp handling, feels light yet remarkably stable, and delivers an unmatched level of confidence, comfort and control.

THERE IS A PERFECT BALANCE OF POWER AND CONTROL. IT'S A LOT OF BOTH.

AFTER FIFTY YEARS OF HITTING THE TRAILS, WE'VE COME TO THIS STEADFAST BELIEF: POWER AND CONTROL ARE BEST ENJOYED IN LARGE VOLUMES. SO WE BUILT A MACHINE THAT'S EQUAL PARTS CONTROL AND AGGRESSION, STRENGTH AND ADJUSTABILITY, AGILITY AND CONFIDENCE, SERIOUSNESS AND FUN. INTRODUCING THE ALL-NEW, POWER-MEETS-PRECISION, 900 FUSION™. AND IT ALL STARTS WITH A NEW CHASSIS, THE IQ™

SUPERIOR SEAT DESIGN MAKES FOR A SUPERIOR RIDE

Blended into the overall dynamics of the snowmobile, our new contoured seat enables near effortless transition from sitting to standing and back again, and fully complements the Rider Select steering system. Sit back for a moment, and you'll find a wide, firm and comfortable base to accompany you on an all-day ride. Slide forward, and the seat's tapered profile integrates flawlessly with the smooth lines of the console, recessed recoil handle and low-profile gas tank. It puts you in position for maximum control, and offers comfort and protection to your knees and legs while negotiating the nastiest terrain. From front to back and everywhere in between, the new Fusion seat integrates you with the machine and redefines rider control.



RIDER SELECT™ STEERING FOR UNMATCHED CONTROL

Some would like you to believe you've been riding snowmobiles the wrong way for far too long. Guess they've never ridden a snowmobile as intelligently designed as the 900 Fusion. Developed upon a theory of totally integrating man and machine, the new IQ chassis adapts to the most important element of any snowmobile: you. It starts with the Polaris Rider Select steering system, which allows the new Fusion to adjust to the way you ride, instead of the other way around. With seven handlebar positions serving up 6 inches of adjustability, we've redefined the term "rider control." With the simple push of a button, you can adjust your relationship to the vehicle, putting you in the optimum riding position for comfort and control with less fatigue, no matter your size or riding style. From standing up to attack a windswept ditchline, positioning to conquer a twisting river bottom trail or stretching out for a leisurely afternoon ride, Rider Select puts you in the ideal position.



ATTACK POSITION

When Rider Select steering is adjusted to the far forward positions 6 or 7, rider mass is moved forward as well. It allows for easy sitting-to-standing transitions and maximum agility in rugged terrain.



CONTROL POSITION

Push the Rider Select steering to the middle positions, and the IQ chassis transforms into a perfectly balanced trail sled. This adjusts rider mass for unsurpassed handling and bite in the corners.



COMFORT POSITION

Pull the easy-to-adjust Rider Select steering system far back to positions 1 or 2, and the intelligent IQ chassis delivers all-day trail comfort. With rider mass shifted rearward, driver ergos are relaxed and comfort is optimized.

