

900 Polaris Tuning Tips

Through field testing on the Polaris 900 IQ a few important issues have come to our attention. To inform customers of these issues, we have put together some tuning tips to help achieve the full performance potential of their machine.

SLP Single Pipe Fuel and Ignition Mapping

An ECU re-flash for the Polaris 900 IQ with an SLP single pipe is required for proper performance. Failure to perform this re-flash may result in severe engine damage. This re-flash is available through any Polaris snowmobile dealer. The cost of this re-flash will depend on the dealer, the only cost being the dealer installation labor. The dealer is required to enter the serial number of the sled to be re-flashed into their Digital Wrench program, then the SLP single pipe map will be downloaded. When the download is complete, the engine warranty will be void.

Ski Camber and Toe Out

Proper steering alignment and suspension setup are critical to the handling mannerisms of your snowmobile. Before taking a sled into the field for the first time it is routine to check suspension setup, ski camber, and alignment. This insures that the sled's handling is precise and predictable. When going through these checks we found that our Polaris 900s ski camber and toe out were out of specification. We highly recommend checking the ski camber and toe out to verify that it is within OEM specification.

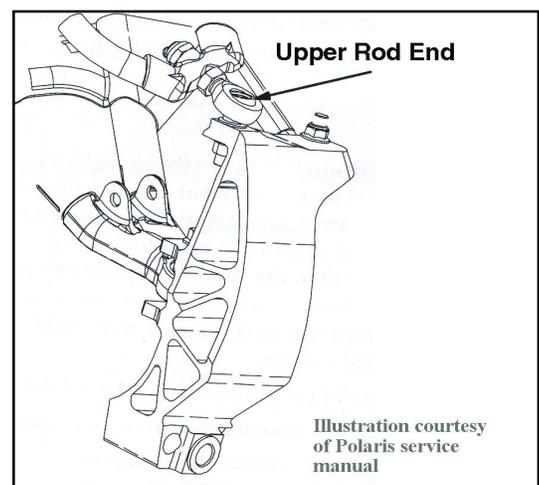
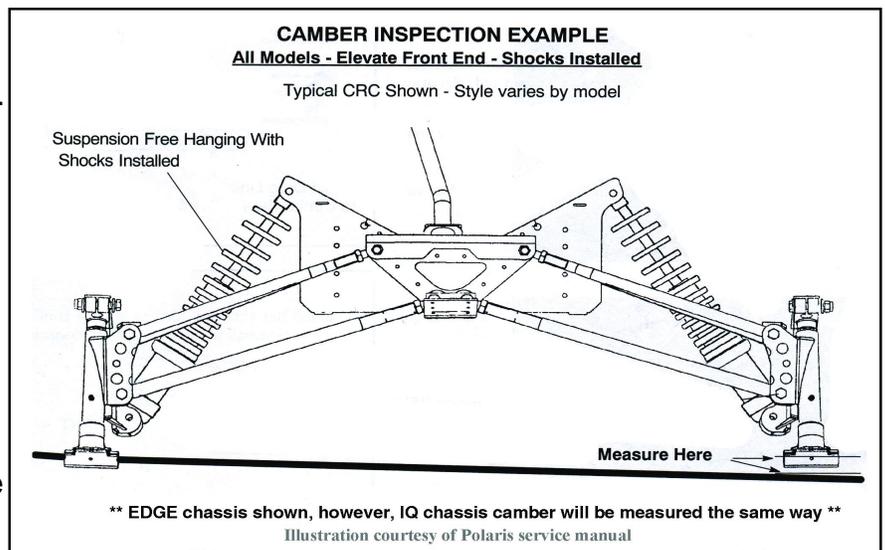
Camber Adjustment on 900 IQ:

Camber measurements are to be taken with the front end of the sled elevated and the shocks at full extension and should measure 2.46" on RMK models and 2.63" on the Fusion plus or minus 5/16".

1. Determine which spindle requires the greatest amount of correction by installing an alignment bar through one side to the opposite spindle. Remove the bar and install it through the other.
2. To adjust camber, change the upper rod end length until the alignment bar measurement is within specified range for each spindle.
3. Tighten jam nuts to 8-14 ft/lbs.
4. Re-check set up width and compare to specification.

Toe Adjustment on 900 IQ:

Toe out is measured in inches with the machine on the



ground and resting in the normal ride height, not full rebound. Measure at a point 10" forward of the ski spindle bolt and 10" behind the ski spindle bolt, preferably on the center line of carbide skags. The toe out should measure between 1/8" - 3/8".

1. Adjust toe so ski / carbides are toed out 1/8" to 3/8". Measure from equal point on skag center line to straightedge to determine the amount of adjustment required per ski. Measuring from points on skis may vary and should not be used.
2. To adjust toe, hold tie rod flats or support edge of tie rod end with a wrench or flat stock to keep it from rotating. Loosen jam nuts on each end of both tie rods. Turn tie rod as required to adjust toe.
3. Hold tie rod and tighten jam nuts. Be sure to position inner and outer tie rod ends parallel to their respective mounting surface. When tie rod ends are properly tightened, the tie rod should rotate freely approximately 1/8 turn.

Powder Snow Ingestion

When riding in deep snow conditions we have found that powder snow is drawn into the intake tract through unsealed areas on the hood. It is very important to seal the hood to reduce the ingestion of powder snow which causes some horsepower and performance loss. We recommend using a clear RTV silicone to seal the gap between the headlight assembly and the hood (once siliconed your headlight will not be adjustable). It is also beneficial to cover the headlight adjustment knob with something such as a piece of duct tape to eliminate snow ingestion. **IMPORTANT:** If headlight and headlight adjustment knob are sealed, intake modifications must be made.

Intake Modifications

The Polaris 900 air intake system is very restrictive. To help deliver additional cold air flow into the intake tract we recommend installing 4 Flow-Rite™ Intake kits in the dash and gutting the stock air box. We are currently working on other air intake products and hope to have them available in the near future.



OEM Torque Stop

We have had an issue of the rubber piece on the OEM engine torque stop coming apart. When this happens the flex of the engine will cause clutches to become misaligned, reducing belt life. If your sled is having belt life problems check the torque stop to make sure that the rubber stop is still intact and adjusted properly. We have found that Polaris part number 3021081 holds up better than the stock torque stop on the Polaris 900. If you find that your stock torque stop rubber has deteriorated, replace it with Polaris part number 3021081.