



method of clutch tuning in some cases, but it can be very effective. For example, you're out in the mountains climbing a hill and the temps slowly go up as the day wears on. Your engine is making less power due to the higher elevation and higher temperatures, and the snow is getting sticky. All three factors indicate less power and more load, and your sled doesn't pull the right RPM. What are you going to do, stop and swap flyweights? Of course not. This is where an adjustable helix comes in real handy. In a matter of a minute or two you can adjust the ramp angles and be back in business!

The straight rate Shockwave we tried on our Yamaha SXViper offered an adjustment

range from 42 to 62 degrees. The SXViper came with a 47 degree helix, which was fine for everyday use. Replicating the stock 47-degree helix was as easy as installing the Shockwave 42-62 helix, and setting it to 1 1/4 turns out. Each full turn varies the angle by four degrees, so the turn and a quarter out (counter-clockwise) adds five degrees to the 42 start, making 47 degrees. Anytime the conditions are such that the engine over revs slightly or is making more power (cold morning on hardpack) you can quickly "tune" the clutching with the Shockwave. A 1/2 turn out and we're adding two degrees of helix, loading the engine harder. Or, a fresh blanket of wet, heavy snow awaits you the next morning and the sled would benefit from a bit less helix, turn the Shockwave in and it'll let the engine build rpm before upshifting, along with a more responsive backshift. Remember, steeper angle provide harder acceleration, a shallower angle is a better backshift.

The Shockwave Adjustable helix is offered in straight cuts and multi-angle cuts so they are applications for most every Yamaha ever made. Yes, there is a Shockwave specifically for the Yamaha four-strokes. For the RX-1, the Shockwave helix is also progressive and features the same 8-degree angle change from the initial



steep angle to finish angle. Set the Shockwave to mid-point (2 turns out) and you'll have the same 51-43 angle as the stock RX-1 helix. From here, you can vary the entire shift pattern by a full 8 degrees, ranging from a 59-51 all the way to a 43-35 and everything in-between!

New this year are complete clutches with this patented technology for the other brands, including Polaris, Arctic Cat and Ski-Doo models, fitted with an adjustable ramp helix, so you can have this feature on most any sled.

The Shockwave Adjustable Ramp Helix retails for \$399. Contact Shockwave Performance at 612-799-2096 or visit www.shockwaveperformance.com



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Ultra 5W40
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