

# 141 Pro Linkage Kit

For Arctic Cat  
& Yamaha SR Viper  
Un-Coupled Rear Suspensions



The uncoupled rear suspensions without torsion springs found in the Arctic Cat XF and Yamaha SR Viper models have a falling rate motion ratio. This geometry is well suited for off-trail riding, but less than ideal for trail use and bump handling. The result is a ride that is both harsh over smaller stutter bumps, yet also tends to bottom too easily over larger bumps.

The suspension experts at Hygear Suspension have engineered a linkage kit that changes the motion ratio and adds progression. The motion ratio, or leverage ratio, refers to how quickly or slowly the shock is compressed as the suspension goes through its travel cycle. Ever since the introduction of the 141" XF suspension riders have praised how light it was, but also complained about the ride comfort, specifically for on-trail use. Typically a falling rate geometry is used on coupled suspensions (to keep it from bottoming) but not in this case. Here Arctic Cat was going after light weight and off trail capability, more so than on trail ride comfort.

Hygear's revised motion ratio speeds up the shock movement, rather than slow it down, as the suspension compresses. By starting out at a slower ratio it improves the stutter bump ride comfort, and by speeding it up as it travels it improves the big bump resistance to bottoming, while at the same time maintaining excellent off-trail handling and performance.

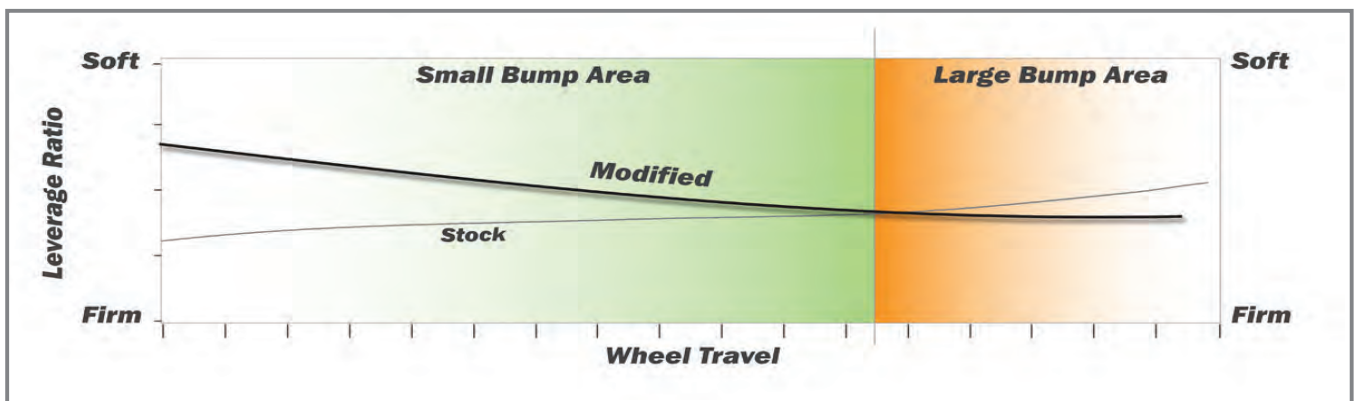
The linkage and timing link rods bolt right into the Arctic Cat

rear suspension using existing mount holes. Removal of the skid is highly recommended for easier installation. Hygear has an excellent video detailing the installation process so you can see exactly how it is done properly. About the most difficult part is going to be drilling two holes to relocate the cross shaft on the rails, which is quite simple if you can pull a skid and install the rest of the kit!

The 141" suspension has been offered with many different shock packages, ranging from coil-over springs on Fox shocks to air spring Float shocks. The 141 Pro Linkage Kit is designed for use with the OEM Fox Zero Pro, Fox Float, or Fox Float 2 rear shocks. Linkage compatible aftermarket shocks are also available from Custom Axis.

That said, a shock with a linear spring rate works best with the progressive linkage. The Fox Zero Pro coil over shock is actually a more ideal calibration versus the Fox Float, which has a progressive air spring. The stock Floats will not be as comfortable in the smaller stutter bumps, but will indeed provide greater resistance to bottoming at full stroke, approaching the point of being harsh.

To fix this condition, Hygear tells us a Dual Pressure High Volume Reservoir Kit is recommended for all machines with a rear Fox Float. The reservoir adds air volume to the air shock, making it more linear and alleviating the harshness that might be experienced from too progressive of a spring.



Coil over spring shocks may need a new single rate spring, depending on rider weight. It seems to work best with riders in the 200-250 pound range. Lighter riders will find the best performance with a lighter straight rate spring, where heavier riders will be best suited with a heavier straight rate spring. Further ride improvements can also be made by revalving the shocks, and making other modifications such as adding adjustable reservoirs.

What if you already have an Air Control or Dual Pressure reservoir already installed on your Fox Float? Can you use this linkage? Yes, but some minor modifications might need to be made, so you should consult with the experts at Hygear to ensure you are getting the best performance from the combination. The same goes for those who already have Custom Axis shocks installed; they are compatible, but some minor modifications may need to be made.

Suspension kits like this which make such a difference in the ride quality and performance of the machine are hard to come by, but this one is so good that we can honestly say that every single 141" Arctic Cat and Yamaha that this fits should seriously consider installation. Especially when you consider the price of the kit is only \$189.99. The kit includes the new linkage, billet link timing rods and all hardware required for installation. Go to the Hygear website and watch the installation video and you will see how clean and easy the installation is.

The 141 Pro Linkage Kit fits most all of the rear suspensions built by Arctic Cat that do not have torsion springs. This includes all of the 141" XFR models from 2012 through 2015, from Limited to Sno Pro, LXR's, Cross Country and High Country. But wait! It also includes the longer track 2012-2015 Pro-climb sleds, along with 2008-2011 M-Series models. It also fits 2009-2011 Crossfire models without torsion springs.

In the Yamaha camp it fits any of the long track models without torsion springs, including the SR Viper XTX, STX and MTX models. As long as it is a coil over or Float shock with no torsion springs, you can change the motion ratio for smoother ride quality and more bottoming resistance. Again, go watch the installation video so you can see exactly what is happening and it will all make sense. Better yet, contact Hygear Suspension and get yours today. You can reach them at 607-533-7434 or visit [www.hygearsuspension.com](http://www.hygearsuspension.com)



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