EZRyde Rear Suspension Adjustment and Tuning Manual

Track Tension

1. Support the rear of the snowmobile with a track stand or equivalent sturdy stand.
2. Hook a spring scale around a track clip at mid-span: then pull the track down with a force of 20 lbs. Measure the distance between the bottom of the Hyfax and the track clip. This distance should be between ¾" and 1".

Note: if the track is new, it will stretch slightly and take a set within the first 300-500 miles of operation.

3. If the measurement is specified, loosen the jam nuts on the adjusting bolts and make sure the rear axle is loose.
4. If the measurement is more that specified, tighten the adjust bolts. If the measurement is less than specified, loosen the adjusting bolts.
5. After correct track tension is obtained, check the track alignment.

Track Alignment

1. Support the rear of the snowmobile with a track stand or equivalent sturdy stand.
2. Start the engine and accelerate slightly. Use only enough throttle to rotate the track several revolutions. Shut the engine off.

Note: Allow the track to come to a complete stop. Do not apply the brake because it could produce inaccurate alignment conditions.

3. When the track stops rotating, check the relationship of the rear idler wheels and the inner track drive lugs. If the distance from the idler wheels and the inner track drive lugs is the same on both sides, no adjustment is necessary. In not, continue to step 4
4. On the side of the track which has the inner drive lugs closer to the rear idler wheel, loosen the adjusting bolt jam nut: then rotate the adjusting bolt clockwise 1 turn
5. Continue to check the track alignment and make the necessary adjustments until proper alignment is obtained.
6. After proper track alignment is obtained, lock the adjusting bolt jam nut.
7. Tighten the rear axle. ***Make sure to use blue Loctite.***

Note: Field test the track under actual conditions and, after the field test, recheck track alignment and track tension; adjust as necessary.

Suspension Adjustment

Many riders do not spend time tuning there suspensions. In fact, many sleds are set by the dealer and left alone for the lifetime of the vehicle. This is in part due to the complexity of a standard skids. It is also because the standard suspension can be difficult to work on. Your EZ Ryde suspension is completely different. In fact, you can remove either the front of rear shocks without removing the suspension. In addition, you can also remove the springs without removing the shock. Simply remove the spring preload, disconnect the shock end attached to the swing arm, remove the spring, and reinstall. You can do this with a standard 9/16” wrench and a 5/16” allen wrench.

EZ Ryde encourages you to “play” with your suspension. You have purchased a custom premium product and have the ability to customize your ride. We encourage you to experiment and welcome any questions or inquiries. Remember, the more you ride and experiment the more refined your suspension will become. Your new suspension has the following adjustment mechanisms

1. Front suspension mounting holes
2. Front spring preload
3. Rear Spring preload
4. Rear shock damping (compression only)
5. Rear spring crossover

The new suspension comes standard with a 160 lb/in spring on the front shock and a variable rate spring on the rear shock. The rear spring rate begins a 130 Lbs/in and reaches 185 Lbs/in.

Softer or stiffer front springs are available at www.ezryde.com. The rear spring set can configured in the following ways.

1. Change tender spring
2. Change main spring
3. Change crossover point

Both tender and main springs will affect the initial and final rates. However, each will affect the cross over point differently. The cross over point is simply the point of total travel where the tender spring is no longer active (it is shorted out). The crossover point is also adjustable by adding or subtracting washers to/from the spacer located between the tender and main springs. Adding washer will increase the cross over and subtracting them will decrease the cross over point. Please note that small changes can make a significant effect.

Please visit www.ezryde.com for a complete listing of tables that show rates and cross over points for various combinations. Remember, the longer the crossover point the longer the soft rate will occur. It is also important to note that preload will effect the cross over will be reduced will added preload.

Spring preload is generally used to compensate for rider weight. However, as discussed above it will also affect the cross over point of your rear spring combination. If your desired preload exceeds 1.75" you should purchase a new set of springs. Please contact EZ Ryde and we will work with you to get a set of springs that match your style or weight. It is noted, that in general more and less spring preload will give you an overall stiffer and softer ride respectively.

If you have the following problems try these suggestions. Please try one change at a time. Determine the effect of each prior to reaching your final settings which may be a combination of several changes.

1. Your suspension bottoms in the rollers.
    a. Add preload to your rear spring
    b. Reduce your cross over point by removing a washer from the rear cross over.
    c. Increase the rate of your tender spring by replacing it.
    d. Increase the damping on your rear reservoir (limit changes to 2 click at one time)
2. Your suspension is rough in the "washboard" bumps
    a. Remove preload from your front spring
    b. Decrease the rate of your front spring
    c. Reduce the damping setting on your rear reservoir
    d. Reduce the rate of your rear tender spring. Try not to change your rear preload.
3. Your suspension is bottoming hard.
    a. Stop and check your shock covers. Packing of snow in your spring/shock will cause abrupt bottom. In addition, this will cause damage to your suspension. There are tell-tale signs of this and it will not be cover by warrantee. Remove snow/ice and replace the cover immediately. It is recommended that you carry spare cover or a means to repair them.
    b. Increase the preload on your rear spring set.
    c. Increase the rate of you main rear spring.
    d. Increase the damping setting on you rear reservoir.
    e. Decrease the rear cross over point.

4. Your suspension will not lift the skis high enough or steering pressure is high.
    a. Move your front suspension swing arm to the lower hole.
    b. Drill additional holes if necessary. Be extremely careful to make sure each side is moved an equivalent distance and that the hole are still in the steel mount bracket.
5. Your sled lifts the skis to high or it pushes in the corners.
    a. Move your front suspension swing arm to the upper mount hole.
    b. Drill additional holes if necessary. Be extremely careful to make sure each side is moved an equivalent distance and that the holes are still in the steel mount bracket.
6. Your suspension is generally “abrupt”.
    a. Reduce the damping setting on your rear reservoir.
    b. Reduce the preload on your front spring.
    c. Reduce the preload on your rear spring set.
    d. Increase your rear crossover point by adding a washer to your crossover spacer located between the rear tender and main springs.
    e. Stop and check your shock covers. Packing of snow in your spring/shock can cause abrupt feeling. In addition, this will cause damage to your suspension. There are tell-tale signs of this and it will not be cover by warrantee. Remove snow/ice and replace the cover immediately. It is recommended that you carry spare cover or a means to repair them.
7. Your suspension is generally soft.
    a. Increase the preload on the rear spring set.
    b. Increase the preload of the front spring. This may cause abruptness in the ‘washboard” bumps if you go to far.
    c. Decrease the crossover point of you rear spring set by adding a washer to the spacer between the rear tender and main springs.
    d. Increase the rate of your rear main spring.
    e. Increase the rate of your rear tender spring
    f. Increase the rate of you front spring

Front mount holes are used to adjust weight transfer or ski lift. You should start with the suspension installed in the middle hole. To increase and decrease ski lift you should lower and raise the mount position respectively.

The adjustment screw for your reservoir should be accessible via a small hole in the tunnel on the right side of the sled (if installed as recommended). Soften the reservoir by turning the adjustment screw counter-clockwise. Clockwise turns will increase the damping of the rear shock.