

**Thanks for Ordering  
The Belt Tension Tester  
from**



**If you have any questions concerning the use of your belt tension tester, please contact us via e-mail at [support@scootworks.com](mailto:support@scootworks.com). This will ensure you receive the most prompt and accurate reply.**

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# Instructions for use of the Scootworks Belt Tension Tester

(Be sure to visit [www.scootworks.com](http://www.scootworks.com) and select [Information Resource Center] from the main page, for more info and pictures!)

## Tools Needed:

- 12mm wrench
- 14mm wrench
- 8mm socket (on 800 Standard and Classic)
- 10mm socket (on 800 Drifter)
- 14mm 6 point socket
- 19mm socket
- 22mm socket (optional, you may substitute a 7/8" socket for this)
- Large Adjustable Wrench

**1.** Remove the cotter pin and nut from the drum brake securing bar. This is located on the RH side of the rear wheel, and is the bar that connects the brake drum to the swingarm. When removing the cotter pins and nuts from the drum securing bar, you'll need to use a 14mm socket/wrench. These are often extremely tight, and the use of a 6 point socket is recommended to prevent damage to the aluminum nut. You only need to remove the bolt and nut nearest the rear of the bike, and loosen the forward one. (The cotter pins will need to be removed from both, of course). Be sure to replace the bolt and nut on the bar after the bar has dropped down out of the way so they're handy when you reinstall the bar.

**2.** Remove the locking and adjustment nuts from the adjuster rods on both sides of the rear axle. These are the adjusters used to tension the chain. The open-end wrenches needed to remove the wheel adjustment and locking nuts are 14mm and 12mm, respectively.

**3.** Remove the cotter pin and loosen the nut on the RH side of the axle. You can turn either side to loosen the RH axle nut. The RH nut is 22mm and the LH end of the axle is 19mm. The hand-wrench supplied in the owner's tool kit is not robust enough for this application, so most users loosen and tighten with a 19mm wrench on the LH side of the axle, while holding the RH side 22mm nut with a large adjustable wrench. You can use the tool kit wrench to secure the RH nut while tightening or loosening, however...You just won't be able to loosen the axle nut with it. Use a pull-bar with the 19mm. Socket, if possible.

**4.** Begin the adjust belt tension procedure by setting the rear wheel adjusters to the rear edge of the 4th alignment mark from the front. Be *sure* that both adjusters are set to the 4<sup>th</sup> mark from the *front* of the bike, it's easy to make a mistake here. Don't "second guess" the following adjustments, follow this procedure in it's entirety... Use the Belt Tension Tool supplied with the kit. Also, **BE SURE** to read all of the **FAQs** on the Scootworks Belt Drive **BEFORE** attempting to 'test drive' your belt drive system. **Correct initial adjustment is critical to the long life of your new belt! ! Please remember that the belt, while strong, is not indestructible! Performing wheelies, burnouts, or excessively hard acceleration at a low speed can result in damage to the belt.**

**5.** With the bike on a lift and the rear wheel off of the ground, rotate the tire while "plucking" the belt. Note the location of the wheel when the belt tension is highest. Place a mark on the tire pointing straight down with the wheel in this position. Remove the bike from the lift, and position the bike with the tire mark pointing straight down. Using the Scootworks Belt Tension Tester supplied with the kit, perform the following test: The bike should be on level ground, transmission in neutral, and rider on. Unbolt the voltage regulator and move to one side. Place a ruler along the

mounting bracket for the voltage regulator, to measure the **BELT** deflection (ignore the ruler printed on the outer body of the tension tester...this is for another application). Slide the small black o-ring on the center plunger of the tension tester to the 10 lb. mark as a point of reference. Apply 10 lbs of force upward on the return side (bottom) of the belt at mid-span, just behind the voltage regulator bracket. The belt should be adjusted to deflect between 1/8" and 3/16", but no more than 3/16" at the loosest point measured. Once adjusted, retighten the axle to 72 ft/lbs and reinstall the cotter pin, retighten the drum locking bar to 25 ft/lbs and reinstall the cotter pin, reinstall the voltage regulator, and lock the 12mm and 14mm rear wheel adjuster nuts together.



6. Once the Belt Drive is adjusted per the above instructions, perform a road test. While the rear edge of the 4th mark or 1/8" to 3/16" of deflection is a recommended starting point, there are many variables with individual motorcycles that make it impossible to provide exact setting values for the rear wheel adjusters. Take the motorcycle out on the road for a quick test. If you get any ratcheting of the belt (jumping or slipping) during normal operation, tighten both adjusters an amount of 'two flats of the nuts' (approximately 1/3 revolution). Test again. Continue, until no additional ratcheting occurs, and tighten an additional 1 flat. Lock the adjusters and ride!



7. Once adjusted, we recommend that you perform is what we call a "pick check". When the belt is "picked" along the edge like a guitar string, it will generate a tone. Observe this when the belt drive installation is new, and use it as a point of reference during the life of your belt. It may sound silly, but it has held true on all of the systems I've installed locally over the last few years, and is a common practice among those who service belt driven motorcycles.

**NOTE: CHECK THE TENSION OF YOUR BELT AFTER APPROXIMATELY 2000-4000 MILES.**

It is very important to check the tension of your belt after 2000-4000 miles of use, and re-adjust it if necessary. There should be no more adjustments needed after that, but as with any good maintenance program, you should always be aware of your belt tension, and check it periodically.

1. When reinstalling the wheel, before raising it up into position, attach the brake cable to the swing arm on the RH side of the wheel drum. This will insure that it is in position and out of the way as you raise the wheel into position to insert the axle bolt.

2. Once everything is connected and the wheel turns freely, begin to torque all fasteners beginning with the forward components and working backwards to the rear of the bike (e.g., swing arm pivot bolt, other swing arm and shock bolts/nuts, wheel hardware, etc.).

**Torque values:**

§ **Swing arm pivot shaft nut: 72ft/lbs**

§ **Shock absorber nuts: 43ft/lbs each**

§ **Link nuts (the two on the bracket holding the drum in position): 25ft/lbs (14mm socket; be sure to position the bolts so, when the cotter pins are inserted, the pins will be horizontal or parallel with the ground)**

§ **Rear axle nut: 72ft/lbs**

§ **Front pulley nut: 150ft/lbs**

3. Don't forget to install the three cotter pins. The large one goes on the RH side of the axle on the nut. The two smaller ones go on the nuts securing the brake drum link bar.

4. Torque the front pulley to 150 ft-lbs. This is best done with the transmission in 1st gear, and someone holding the rear brake locked. **BE SURE to use RED (permanent) loctite on the threads of the nut and shaft for the front pulley, and DO NOT reinstall the OEM locking washer on the shaft(read the FAQ below for more info on this)!**

5. Reinstall the chrome cover for the front pulley using a 5mm Allen wrench. Remember that it installs easiest when you have the rubber gasket mounted on the engine side (not on the removable cover) and if you insert the bottom of the housing first, roll it up toward the bike to align it, then slide it forward.

**Maintenance**

There isn't a lot of maintenance required for the belt drive system. Check the belt tension periodically, and keep the system free of dirt and debris.

Occasionally, inspect the torque of the front pulley attachment. I recommend to check this at 2000 miles, and then again about every 10,000 miles afterward. The Kawasaki attachment method for the front sprocket or pulley has been known to loosen in a few applications. The OEM locking washer is of a very soft material, and will wear easily if the front securing nut should loosen. The more the nut loosens, the more the washer wears, etc. An excessively loose drive system can cause premature shaft/spline erosion. This isn't isolated to belt-driven 800's, and can also happen with chain driven 800's...so you may wish to pass this info along to your chain-driven brethren. Insure that the front nut torque is set to 150 ft/lbs. per the instructions. This is **very important**. Vulcans 800's driven by riders who tend to use heavy engine braking, have a higher propensity to loosen this nut than those who slow their bike with brakes (while in 5<sup>th</sup> gear) and downshift back to 1<sup>st</sup> as they roll to a stop. Engine braking is abusive to the driveline (including the clutch), so opt for your brakes instead. There is a Technical Bulletin on this topic at [www.scootworks.com](http://www.scootworks.com) in the Information Resource Center. Please

### **Belt "Quick Change" Instructions...**

We don't recommend this procedure be used for the initial installation, as most swing arms are poorly lubricated and should be properly serviced at the time of installation. Here are "quick change" instructions for belt replacement:

Lift the rear wheel a few inches off the ground by the frame (below the engine/frame with a lift, not by the swing arm). Remove the rear wheel. Remove the bolt securing the bottom of the shock (farthest to the rear of the aluminum suspension relay arm). Remove the bolt securing the tie rod link to the suspension relay arm (in the middle of the aluminum suspension relay arm). Push the relay arm down and out of the way. Remove the caps that cover the swing arm pivot bolt. Wedge a straight blade screwdriver in against the swing arm pivot nut on the RH side (behind the pipes..no need to pull the pipes). The nut holds itself in place very nicely... Remove the swing arm pivot bolt from the LH side. Fold the belt (not tight, but about like it would be when wrapped around the front pulley) and push it below the swing arm pivot, all the way to the engine. Push the swing arm forward (towards the engine). Twist the top of the belt a bit and pull it up and over the top of the swing arm pivot. Pull the swing arm back into place and reinstall the pivot bolt. Reassemble, adjust, and ride. I've performed a belt replacement in about 20 minutes using this method.

### **FAQ's (Frequently Asked Questions)**

**Question-** I recently saw a HD Belt, and it was very large. Is the Belt used in the Scootworks Belt Drive of an adequate size for my bike?

**Answer-** Many of the older belts for H-D systems were large, as they used an older technology. Many are simple rubber timing belts with a fiber reinforcement. The newer belt driven bikes use a technology incorporating Kevlar in their construction, making them much stronger as well as much smaller. The belt used in the Scootworks Belt Drive is one such belt, and has a higher tensile strength than a #60 steel roller chain. It has been road tested for thousands of miles, and is more than adequate for the application.

**Question-** I currently have to adjust my chain every 1000-2000 miles. I have a friend with a belt driven bike, and he has to tension his belt also. Will I have to periodically adjust my belt tension?

**Answer-** Chains stretch across their entire lifespan. Cord reinforced rubber drive belts used on some motorcycles also stretch. The composition of the belt used in the Scootworks Belt Drive doesn't lend itself to stretch the way conventional belts do. Usually, after initial installation, the Scootworks belt will need a single tension adjustment after 'break in' (somewhere between 1000-4000 miles, depending on rider). This tension adjustment is due to several variables that occur during break-in :

The belt will wear to match the exact contour of the drive pulleys. Paint wears away from the teeth of the front drive pulley. Chrome plating and/or paint wears away from the teeth of the rear drive pulley. A very small amount of belt elongation when new (usually only a few thousandths of an inch!)

It's virtually maintenance free.

**Question-** Does the Scootworks Belt Drive system require any additional materials, fasteners, etc. for installation?

**Answer-** The Scootworks Drive System comes complete with all parts needed for installation, including detailed step-by-step instructions. One only needs to supply RED (permanent) loctite thread locking compound.

**Question-** How long does it take to install a Scootworks Belt Drive?

**Answer-** We've had dealers install these systems in under 1 hour, and I've installed many, many of these in my personal shop in just over 1 hr, by myself. My personal motorcycle shop at home is equipped with only average tools, a lift, etc. Conversely, I've had some people report that their local dealership charged them for as much as 8 hours of labor... So, this obviously depends on many variables. Items such as the speed of the individual performing the installation, stuck fasteners, contamination of components to be removed, tools available, problems understanding instructions, individual skillsets, etc are beyond our control. A good rule of thumb for a person performing a first time installation is approximately 3 hours. Remember, we are only an email or phone call away, to answer any of your questions.

**Question-** Will I have to cut or modify anything to get the Scootworks Belt Drive system on my bike?

**Answer-** No, the Scootworks Belt Drive is a direct replacement for your original chain drive system. Following the instructions for a conventional OEM chain replacement, the Scootworks Belt Drive slips back into place as if your bike came with it originally!

**Question-** Will the Scootworks Belt Drive require an additional belt guard? The bike in your pictures has the belt exposed and I'd like to cover it to keep rider's feet safe.

**Answer-** The Scootworks Belt Drive was designed to retain the use of your existing chain guard. There are no clearance problems and the OEM chain guard works nicely with your new belt drive system. Some customers have fabricated their own lower guard, to eliminate the possibility of a stone entering the system, but reports (and personal experiences) with this failure mode indicate that operation without a lower guard is practically a non-issue.

**Question-** Does the Scootworks Belt Drive reduce acceleration?

**Answer-** There is some minor reduction in acceleration from start is a little less than the OEM chain drive and sprocket installation. This is due to a reduction in the final drive ratio. However, there is a very noticeable reduction in engine RPM's at cruising speeds, making the ride much more relaxed. The reason for the difference is due to the change in ratios used by Scootworks in the belt drive system. One of the design criteria was to reduce engine speed to make hiway speed operation more enjoyable, and to improve gas mileage.

**Question-** What gear ratio have you selected for the Kawasaki belt drive, and will I loose horsepower or top end speed??

**Answer-** The engine will produce the same horsepower, irrespective of the final drive ratio. Power to the ground will increase a bit, as the belt drive efficiency is about 98% vs. a chain being in the mid-80% range (at it's best!). Since the power band is at a different vehicle speed, you'll notice some difference in acceleration at different speeds. Top speed will remain the same, as the amount of HP developed by the engine will only do a certain amount of work.

The bike may not leap out of the hole as it did (by comparison), depending on the year model of your bike. The '95 and early '96 models were geared at a ridiculously low ratio (2.875:1!!), eventually improved by Kawasaki in later models. The later models were shipped from Kawasaki with 2.75:1, 2.47:1, and finally 2.35:1 in the 2000 Drifter 800's. Many riders commonly swap the front sprocket to a 18t, resulting in 2.22:1. Most every chain driven metric cruiser on the market today comes geared to give the best "around town" performance, yet lack a bit on the open road due to high cruising RPMs.

The belt drive is shipped as 2.22:1, and was optimized at that ratio after much experimentation in 1998 with ratios from 2.10:1 through 2.51:1 and thousands of miles in all sorts of terrain.

Much additional info is available in the FAQ's section of our website at [www.scootworks.com](http://www.scootworks.com), in the "FAQ's (Frequently Asked Questions)" section. You can also view the installation instructions and learn more about it in the "Information Resource Center" portion of our site.

**Question-** When I received my Scootworks Belt Drive, I examined everything closely. I accidentally turned the belt "teeth out", and folded it together. A white stripe appeared in between two teeth of the belt. Is it OK to install it anyway??

**Answer-** No, do not install this belt. While the belt has a tensile strength higher than a #60 steel chain, the Kevlar composition is not designed to fold or bend tightly. Never bend the belt smaller than about 1 1/2", and absolutely never bend it inside out (as if you're inspecting the "teeth" closely). This will damage or break the Kevlar material, and lead to premature failure.

**Question-** Is there any danger in damaging the output shaft bearing of the engine, due to the tension required by a belt?

**Answer-** An engineering study was performed on the installation, taking into consideration the tension of the belt, additional load presented by the engine, the location of the shaft bearings on the shaft, and the type of bearings used by Kawasaki in the design of the output shaft. Load data indicated that the shaft loads were well within the bearing design parameters. Feedback from field testing has indicated, with well over 80,000 miles of use on the test installation and hundreds of thousands of miles logged by our customers around the world, that no additional wear has occurred in the bearings of the output shaft and drive system free motion is unchanged.

**Question-** Kawasaki recommends a torque of 94 ft/lbs. and the use of their locking washer on the engine output shaft. You recommend RED loctite, no locking washer, and 150 ft/lbs. of torque. Which is correct??

**Answer-** Countershaft nut loosening has been a long running problem with the Kawasaki 800 engine. We began working on a solution to this problem back in '99, after finding bikes with low mileage having loose countershaft nuts and damaged splines on the shaft. After doing an engineering study on the countershaft (nut size, material composition, thread pitch, etc), we determined the first problem to be the torque spec of 94 ft/lbs. The correct torque is 150 ft/lbs., with the upper acceptable end being 210 ft/lbs.

The next problem is the malleable material used in the Kawasaki lock washer... The chain sprocket/belt drive pulley will "squirm" (rotate CW and CCW about 1/10,000th inch, due to the required installation clearances between the splined shaft and mating surfaces) on the shaft a bit during accel/decel. Over time, the soft material in the lock washer will wear, creating more clearance, which causes more movement, etc...it gets into a run-away condition, and will damage and/or destroy the output shaft. Our tests with red loctite (permanent grade) and 150 ft/lbs. of torque corrects this situation, and is actually an "old school" fix. Red loctite isn't really permanent on a shaft of the diameter used in this application, but it is a very good thread locking compound.

**Question-** Does the swing arm have to be removed for installation?

**Answer-** Yes, just like with the installation/replacement of the OEM O-ring chain, the swing arm must be removed. It may sound scary, but is really quite simple and is outlined both in the shop manual and in the instruction booklet supplied by Scootworks. The only thing special is the requirement that the back wheel be raised to remove the swing arm (just as in the chain replacement procedure). If you have your work done by a mechanic, he wouldn't encounter anything different from a conventional chain replacement job.

**Question-** When I tried to install the rear wheel, I noticed that the pulley flange contacts the welded area on the inside LH of the swingarm, near where the axle fits.

**Answer-** Before installing the rear wheel assembly, check the LH side of the swingarm for an interference problem between the outer edge of the pulley flange and the welds associated with the LH axle mounting plate. The slotted axle mount that is welded into the rear section of the LH swingarm tubing will often have lumps of weld that could possibly contact the pulley when installed, causing scratching or damage. These portions are manually welded, and the resulting clearance varies wildly. File or grind any protruding weld lumps, and touch up with black paint.

**Question-** How do you get the locking washer bent back around the front drive nut?

**Answer- DON'T!** Follow the instructions for the use of RED loctite, 150 ft-lbs. of torque, and do not use the locking washer with the belt drive.

**Question-** I received my Scootworks Belt Drive, but am unsure of the correct direction of installation for the rear pulley. Which side of the pulley should be turned towards the hub of the wheel?

**Answer-** One side of the pulley is slightly deeper than the other. The deeper side faces the rear hub/wheel.

**Question-** I'm not sure I have the belt tension set correctly. Are there any simple methods to use as a starting point?

**Answer-** Sure. Correct belt tension is easy to accomplish, with very little practice. Once all is installed, begin the belt tension procedure by setting the rear wheel adjusters to the rear edge of the 4th alignment mark from the front. Be *sure* that both adjusters are set to the 4<sup>th</sup> mark from the *front* of the bike, it's easy to make a mistake here. Don't "second guess" the following adjustments, follow this procedure in it's entirety... Use the Belt Tension Tool supplied with the kit. Also, **\_BE SURE\_** to read all of the **FAQs** on the Scootworks Belt Drive **\_BEFORE\_** attempting to 'test drive' your new belt drive system. **Correct initial adjustment is critical to the long life of your new belt! Please remember that the belt, while strong, is not indestructible! Performing wheelies, burnouts, or excessively hard acceleration at a low speed can result in damage to the belt.**

With the bike on a lift and the rear wheel off of the ground, rotate the tire while "plucking" the belt. Note the location of the wheel when the belt tension is highest. Place a mark on the tire pointing straight down with the wheel in this position. Remove the bike from the lift, and position the bike with the tire mark pointing straight down. Using the Scootworks Belt Tension Tester supplied with the kit, perform the following test: The bike should be on level ground, transmission in neutral, and rider on. Unbolt the voltage regulator and move to one side. Place a ruler along the mounting bracket for the voltage regulator, to measure the belt deflection. Apply 10 lbs of force upward on the return side (bottom) of the belt at mid-span, just behind the voltage regulator bracket. The belt should be adjusted to deflect between 1/8" and 3/16", but no more than 3/16" at the loosest point measured.

Once the Belt Drive is adjusted per the above instructions, perform a road test. While the rear edge of the 4th mark or 1/8" to 3/16" of deflection is a recommended point, there are many variables with individual motorcycles that make it impossible to provide exact setting values for the rear wheel adjusters. Take the motorcycle out on the road for a quick test. If you get any ratcheting of the belt (jumping or slipping) during normal operation, tighten both adjusters an amount of 'two flats of the nuts' (approximately 1/3 revolution). Test again. Continue, until no additional ratcheting occurs, and tighten an additional 1 flat. Lock the adjusters and ride!

Once adjusted, we recommend that you perform is what we call a "pick check". When the belt is "picked" along the edge like a guitar string, it will generate a tone. Observe this when the belt drive installation is new, and use it as a point of reference during the life of your belt. It may sound silly, but it has held true on all of the systems I've installed locally over the last few years, and is a common practice among those who service belt driven motorcycles.

**NOTE: CHECK THE TENSION OF YOUR BELT AFTER APPROXIMATELY 2000-4000 MILES.**

It is very important to check the tension of your belt after 2000-4000 miles of use, and re-adjust it if necessary. There should be no more adjustments needed after that, but as with any good maintenance program, you should always be aware of your belt tension, and check it periodically.

**Question-** My Belt makes a slight 'squeak' when I roll the bike slowly. Is there anything I can do for this?

**Answer-** This is normal for the technology and fit we use in the WideDrive. An old "trick" used by many belt driven motorcycle owners of all brands, is to occasionally rub the edges of the belt with a bar of soap to eliminate "dry squeak". The "squeak" is usually caused by small particles of dirt that become embedded in the belt while riding, and/or by a clean and dry belt while rubbing against the edge of the pulleys (much like rubbing a clean finger around the top of a wine glass). A little dry soap will "lubricate" the edge of the belt, and eliminate "ringing" or "squeaking", should it occur.

**Question-** I've noticed a 'howl' or 'whine' from my belt at certain speeds. Is this normal??

**Answer-** It is normal for the belt to exhibit a small 'howl' or 'whine' at some speed between 25-45 mph, once break-in is completed. This is simply the point where resonance is achieved between the belt tension and the rate that the belt's teeth strike the pulleys. A new belt will often be a bit noisy for the first few hundred miles, while it is wearing to match the contour of the front and rear pulleys.

A belt that 'howls' at a wide range of speeds usually indicates a slightly overtensioned belt. Overtensioning isn't typically a contributor to premature failure (as is undertensioning!), but is a bit annoying. Loosen the belt tension slightly, but stay within the recommended 1/8"-3/16" tension setting. I usually loosen the rear wheel adjusters by only 1 flat each, while making this adjustment. Measure the tension, road test, and repeat if necessary. Once adjusted, this doesn't need to be repeated in the future.

**Question-** I don't want to run my belt as tight as recommended by Scootworks. Can I operate with the belt a little slack?

**Answer-** No. If the belt is loose (even a "little"), the mechanical shock generated when placing the bike into gear as well as that of the vibration transmitted from the engine to the drive train, will destroy the belt. A loose belt will allow the input pulley to generate transients many times greater than would normally exist in normal operation. Additionally, micro-oscillations will occur along the length of the belt's lower track that will destroy the Kevlar in the belt and lead to premature belt failure. The leading cause of premature belt failure is under-tensioning. Adjust the belt to the correct tension as recommended by Scootworks.

**Question-** My belt seems to jump teeth occasionally, under normal to moderate acceleration. Is something wrong?

**Answer-** The belt should **NEVER** jump during normal use. As with any belt drive, no matter of manufacture, it is possible to cause it to jump (and even destroy it) during heavy acceleration, when doing burnouts or attempting to pull "wheelies". If your belt jumps during normal to moderate acceleration, check to make sure you have it adjusted the dimension outlined in the belt tension instructions. If the problem persists, increase the tension by adjusting the rear wheel adjusters in 1/3 revolution steps (2 flats on the adjuster nuts), and repeat the test. A single 1/3 revolution increase in tension can make a considerable improvement in performance. Most often, this problem occurs when a new drive is installed and is not adjusted correctly, but can occur after the belt has past the initial break in period and requires a minor adjustment.

**Question-** I know how to install and adjust a belt, and don't care to bother with the tension tool if the belt tension feels OK to me. Is it really that important to use the tool, or do I just need it for the initial installation?

**Answer-** I really wish we could call this something other than a belt, because I've answered this question many, many times. The only similarities between our belting and conventional belting that most are familiar with, is the fact that it is a continuous loop of semi-flexible material. Try to forget anything else you know about belting, including the common myths that exist about motorcycle drive belts. The single most common cause of premature Kevlar belt failure is under tensioning. Micro-oscillations in the return track of the belt, as a result of incorrect tensioning, will destroy the Kevlar in short order. Often, a belt adjusted out of spec as little as 1/16"-1/8" @ 10 lbs. will destroy a belt

that would otherwise last for tens of thousands a miles. It's almost impossible to distinguish this difference by "feel" or see it with the human eye. This is the reason our kits are supplied with the tool...to insure this adjustment is made correctly. The good thing is, once the initial and break-in adjustments are made, you can almost forget about your drive system. The tool makes this adjustment accurately, and is VERY easy to use. Be sure to read the installation instructions completely, and familiarize yourself with the tool. There is a separate instruction and FAQ on our website at [www.scootworks.com](http://www.scootworks.com) for the tool, in the event you would only like to read about that.

**Question-** How tight does the belt need to be? I was afraid to get it too tight for fear I might snap it. How tight is too tight?

**Answer-** These belts are STRONG! You can literally lift an automobile off the ground with this type of belt. Adjust the rear wheel to the rear edge of the 4th alignment mark on the swingarm, from the front. Follow the belt tension instructions and the belt drive will perform correctly.

**Question-** My Vulcan jumps suddenly when I place it in gear from a cold start. Is this normal, and will it damage the belt?

**Answer-** Start the engine, and hold the clutch "in" for about 30 seconds before you place it in gear. There isn't anything wrong, and many bikes with wet clutches will do this when cold. If unused for a while, a wet clutch will displace the oil from the clutch plates and create a vacuum, giving the appearance that the clutch isn't disengaged. Pumping the clutch doesn't usually help, but holding it in as I outlined will make that first shift into gear nice and smooth. This will also help minimize stress on the belt (and the rest of the drive train!) when starting a cold engine.

**Question-** Is there any lubrication or other maintenance on the belt drive after it's installed?

**Answer-** Only once, at about 2000-4000 miles. Once the belt drive is installed with the proper tension on the belt, the only other adjustment is a minor retensioning after break-in. ...unlike a chain which requires lubrication every 600 miles. Chains normally stretch over time and require periodic readjustment. The Scootworks Belt drive uses a Kevlar/Arimid fiber reinforced Poly Chain similar to that used on other "modern" belt driven motorcycles. Since there is no belt stretch (well, only about .002"!), the system requires no adjustment. A great by-product of having a belt drive instead of a chain is the fact that you no longer have all that grease and grime to clean from your rear wheel, tire and rim that a chain will deposit there.

**Question-** I'm going to remove my belt/swingarm to perform lowering modifications to my bike. Are there any precautions I need to observe when reinstalling a used belt?

**Answer-** Inspect the belt for any physical damage. If there is any damage, now is the perfect time to replace it..it's very inexpensive. If you decide to reinstall the old belt, be sure to mark it's original direction of installation, and reinstall it so it runs in the same direction it originally did.

**Question-** I was afraid going from a final ratio of 2.875 to a 2.22 would kill the "takeoff" power of my '95 model Vulcan. It really does slow those RPMs down at highway speeds! I'm really impressed with the setup and am surprised at how relatively easy it is to takeoff from a stop.

**Answer-** It makes a substantial difference in cruising RPMs of the '95-'96's that originally came with a 16t front and 46t rear sprocket. Typical reduction of engine speed on those models is around 23%, and about 11% on the newer versions shipped with 17t front and 42t rear sprocket complement. To equate this to engine RPM's vs. hiway speeds: At 60 mph in 5th gear, the Vulcan 800 A ('95 and '96) usually turns approximately 5100 RPM. The Classic's usually rev to about 4450 RPM at 60 mph. The Drifters usually operate at about 4250 RPM at 60 mph. With the belt drive, the final drive ratio allows then engine to run at approximately 3900 RPM at 60 mph.

**Question-** Does Scootworks have a Warranty of any type? I've looked all over the web site and couldn't find anything.

**Answer-** Certainly! Scootworks Inc. warrants the workmanship of all materials sold, to be free of defects for a period of twelve (12) months from the date of purchase. As with any other belt drive manufacturer, the belt is warranted to be

free of defects at the time of purchase only. You can find more information on the first page of the Scootworks WebPage, at the bottom of the page under 'Warranty & Return Policies'.