

# FIVE MINUTE TIRE CHANGE

## Being Prepared

What you need ready and staged, no wandering around the shop looking for the quick-off wrench.

Valve stem puller.

Quick-off (axle) wrench.

At least three good little tire tools. I like the red handled ones Moose makes.

1 Big tire iron (optional).

Tire changing lube (Yamaha makes good stuff).

Extra valve stem nuts.

New tire (Ready near the stand, loaded with tube, little bit of air, lubed).

Heavy duty tubes (Moose has great heavy duty tubes). You're wasting your time and money to not put in a good HD tube.

Tire changing stand (optional). I use one from SRC mounted on a piece of plywood.

Sledge hammer.

Axle nut wrench (at bike).

Axle grease (at bike, axle location).

Paper towels on ground near bike axle location (to clean and stage axle).

## Modifications (before any tire changing goes on)

Rim modification:

You need to have both your rim lock hole and valve stem holes near each other, about four inches apart max. Most rear rims are like this, but we have to re-drill the front rim. Go ahead and drill the correct size hole for the rim lock bolt. Clean up hole and shavings. Seal up the old hole with RTV. Important note: Disc side up, you want the rim lock in left hole.

Toss the rubber rim ring. Use about two-inch wide duct tape to tape the inside of the rim, over the spoke heads, at least two runs around the rim. Poke holes through for the stem and rimlock.

Tape or Mark Valve Stem location:

Either use small pieces of tape and tape around the



spokes on each side of the valve stem hole or mark the rim with paint or magic marker. You do not want to be looking for this hole in a hurry.

## Right Before the Tire Change

Load and lube new tire and tube:

Have your new tire ready with the tube loaded. Put a really small amount of air in the tube, just enough for it to find its shape inside the tire (I don't use any air if I am using Moose Heavy Duty tubes). Generously lube the tire rims with tire changing lube. Don't do this much before you are ready to do the job, some of these lubes dry up.

1 – It is fair to start the clock with the air out of the tire and the rim lock loosened, in fact, take the valve stem out and ride around some. At the ISDE, you do



*Everything you're going to need, laid out neatly. If you're going to do a fast tire change, you need all your tools within reach—no hunting around!*



*The slick way to get the tire off the rim—remove the first side then half the second side, stand the tire up and push the rim off with your high heels.*

## ...by a girl!

this a few miles before the end and ride in on a flat. It is important to get as much air out as possible. Don't forget to loosen the rim lock.

2 – The clock starts. Put new tube valve stem nut in your mouth or make sure it is staged near tire changing stand. No looking around for it later!

3 – Take off axle nut; knock out axle. Clean axle, put on good new grease, stage on towel at easy access location to bike. No looking around for it, no greasing after the tire change. At the ISDE, your crew can apply the grease to your axle and hand it back to you.

3 – Push brake puck open, whatever method you like. I just stick a big screwdriver in them and pry, careful not to hurt the pads.

4 – Drop tire on tire changing stand or ground, disc side up. (Assuming the bead is already broken, if not start with sprocket side up, break bead by standing hard in one location and working around, flip over to disc up, same procedure.)

5 – Tire tools handy, no looking around, starting clockwise with the rim lock at 12:00. Start at 12:05 from your location (you are reaching across the tire), put one tire iron in, pull back some, the second about three inches away (not too far!). There is a sweet spot. Pull these two back some, then the third iron in about three inches away also. You might have to let back slack on the other two to get the third one in, and then bring them all back. Remember to hold them all down, you can hook them under the disc, but make sure they are down. If done right, the middle tire iron will drop out. Grab it, holding the other two down,



*Enough silliness, I can't do the rest in a dress, and patent leather pumps break too easily. Note the valve stem nut held in the teeth. Pretty, huh?*



*Pull out the tube, get the valve in, then dig down and capture the rimlock with the bottom tire bead. Put the valve stem nut on so you don't lose the stem.*

find the next sweet spot and work your way around. It should be easy, if it is hard, you are taking way too big bites. If done right you will be able to move quickly around using the same method all the way.

6a – Once side one is off, flip over and do the same thing on the other side, only about three-quarters of the way around or so. At this point, pick the tire up, standing up like it was on the bike. Push the rear sprocket down with your foot hard, with the rim lock down near the ground. This will make the tire oblong and you should be able to pull the rim out with your hands. This works best with absolutely no air left in the tube.

(See 6b if you want another proven method. I use the above because to me it is easier than 6a when I am tired after riding. If I am in the shop, I might use the below method, but I like to keep sharp on the above)

6b – Once tire is off first side, stand the tire up. Take a big tire iron and a sledgehammer. Jam the big tire iron through the tire to the other side of the rim. Push down hard with this iron, I mean really hard, holding the wheel between your knees. Using the sledgehammer, strike the tire where it is straining on the rim. As you do this, the tire will give way. Keep moving around and soon the tire will come off. Toss the tube and tire.

7 – Drop rim back down, sprocket side down, with the rim lock hole down near your left ankle.

8 – This is the best trick that takes some time to master but here it is—getting the valve into the rim without hurting your hand, and capturing the rim lock.



*Lever the first bead down onto the rim, then taking two or three-inch bites lever the rest of the tire on.*

Remember your valve stem and rim lock holes have to be near each other, with rim lock in the left hole. Put valve stem nut in your mouth, if it is not already there. Plop the tire with tube on the rim with valve stem across from hole. Pull the valve stem out of the tire, I mean, just grab it and pull, you need slack.

Tilt the tire up, I mean really up, so you can put the valve stem in the hole, don't worry about the tire's position to the rim. All you want to do right now is get the valve stem in the hole, push it in, and screw on the valve stem nut as much as you can, but no big strain.

Keep tilting the tire up. Now, capture the rim lock under the tire bead on the backside and push the tire into the rim, keeping it pushed in with your ankle. Push the tire back down on the rim.

9 – Keep pressure on the rim lock area with your ankle. Start the first tire iron about 10 inches to the left of the rim lock, working your way from 6:00 to 12:00. **THIS TIRE TOOL SHOULD ALWAYS STAY THERE UNTIL YOU ARE WELL AROUND THE OTHER SIDE. NEVER LET UP PRESSURE HERE.**

10 – So, you are pushing your ankle against the rim lock and holding down the left side tire tool. Use the second tire tool and start about four inches to the right of the rim lock, almost right over the valve stem. Work the tire on about three or four inches at a time. Remember, not too big bites. Once you are at about 1:00, you can pull out the first tire tool and work the left side on, but you won't need many bites. At the last bite, the tire is on first edge of the rim. With good



*Aired up and finished. Stop the clock!*

lube, this is easy.

11 – This is a good time to check the position of your valve stem. Straighten it if it is crooked. It is easier now than when both sides are mounted. Straighten by sliding the tire one way or another.

12 – Make sure the rim lock and valve stem are at your ankles. Work your way out from 6:00 up to 12:00. Again, starting at the left of the rim lock, keep this tool down. Use the second tool, starting about four inches to the right of the rim lock. Step on the tire with your big foot at the place you just mounted with the second tool, pull out the tire tool and go up about six more inches. Keep moving your foot to hold down the tire. All the way around and your tire is on. Remember to keep the left tire tool down until it is well seated.

13 – Air up with good pressure to seat tire.

14 – Let tire pressure down to desired pressure.

15 – Tighten rim lock.

16 – Put wheel back on the bike, making sure to line up brake disc.

17 – Start chain at the bottom, it will help align the rear wheel.

18 – Axle in, nut on.

19 – You're done! Look at the clock.

Now, the difference between a five minute tire change and a 20 minute tire change is practice. If you are willing to go through steps 1-19 at least four times per session, and about three sessions per week or until you have it down pat, then you will be able to say you can do it. But, like anything else, practice gets you better. I'll never say perfect!

— Suzy