

TODAYS LESSON  
FINAL  
ADJUSTMENTS  
PROF JIMMY RIVERS

SPEED SHOP  
SCHOLAR

Welcome to another edition of the "Speed Shop Scholar." Over the last few months we have assembled, or, depending on your circumstance, gone over and verified our racing chassis. We have gone



from the ground up and taken many of the necessary steps to get our machine "track ready."

The steering is assembled, the seat is mounted, and the body is installed. We have also routed our throttle cable and fuel lines, along with our MyChron leads. Just a few items remain on our checklist before we can get on the scales and finish this baby up.

Step one is to bolt up our tire and wheel package. Have the tires properly staggered, as this will compromise our results otherwise. Check infla-



tion pressure and adjust. Use a pressure you expect to use at the track; nothing to an extreme high or low, just a good neutral setting. Before tightening up, take a quick minute to inspect the wheel studs. Make sure the threads are good, and verify they are tight into the hubs. Check the lug nuts for good edges, a rounded off lug nut can be a major issue.

Check the wheel spacing and adjust if necessary. Typical spacing is to have both front tires in as tight as possible without dragging the spindle arms. On some chassis, it is possible for the wheel to drag the frame if the wheel is turned to the extreme. Don't make an adjustment based on this, because if you are putting thirty degrees of steering input into



your kart, you have much larger problems. The right rear should be in tight to the frame, and the left rear should have about 3/4" to 1" clearance depending upon the chassis. If it checks out, attach the lug nuts and tighten securely.

Time to get serious. Lay out the scaling platform and place the scale pads into proper position. Check the platform in every direction and get perfectly level. Extra time and precision here is the key to repeatable results. If the level changes even the slightest amount, your numbers will change right along with it.

Next step, load the kart onto the scales, and



Check and adjust the chassis to achieve the weight percentages based upon recommendations and the expected track conditions. Have the kart "track ready", all fluids and items just as it will be on the track. I prefer to get the left side, and nose weight close, then adjust the cross



have the driver get into the seat. Be sure the driver is wearing their safety gear, or at least clothing of comparable weight. If you scale the chassis in a t-shirt and hit the track with a heavy leather jacket, the percentages are not the same.

Now, let's set the toe for the first time. With the pitman arm in a true vertical position, tighten the toe lock and



weight. Move or attach lead weights, and adjust the front washers to get everything as close as you possibly can to your desired percentages.

Tighten securely and double nut all weights, and recheck the toe one last time. Make the needed tweaks, and there, we got it. All we need now is for race day to get here, and quickly.

Remember, as I state almost every month. The key is to take the time to do the job right. Pay attention to your



insert the lock pin. Square the chassis on the left side, and set the toe on the right according to the chassis manufacturer's recommendation. The most common setting for today's karts is 1/16" toe out.

With that complete, set the camber on both front wheels. Keep in mind, that when you adjust one side, it is common to change the other side a slight amount as well.



work and keep your eyes open to spot an issue before it becomes a major concern. If there is an area or item that you don't understand, reach out, many are there to assist you. Until next month, race hard, race smart, and race safe. See you next month!



Almost every adjustment made causes a slight reaction to the opposite side and to other components. This is why I suggest checking each wheel twice. Upon completion, re-check and reset the toe.