Knopf Dominates 'Dega!!

CHASE'N RACE'N ILLUSTRATED

A Publication of P&R Photos | www.chasenracen.com | Vol. 8 Iss. 7 | August '12 | $5

SUMMER NATS PROVIDE HOT TIME IN SOUTH DAKOTA
BALLHAGEN AND SMITH HEADLINE MIDWEST PKT SHOW

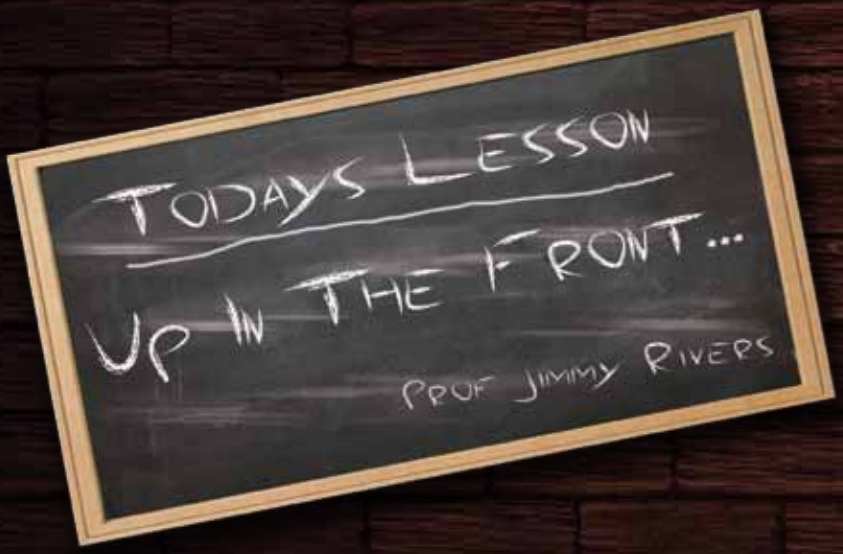
SHOOT-OUT NEARLY WASHED-OUT!
BURRIS EVENT SURVIVES WRATH OF MOTHER NATURE

Day By Day...
KID 2 KID

Speed Shop Scholar
Up In The Front...

enTire Truth
Air Pressure

Bonus Coverage:
Maxx Daddy Championships @ PK
Young Guns Series @ Owosso
Blueberry BlowOut @ Hurricane - Plus More!!!



SPEED SHOP SCHOLAR

Welcome to another edition of the "Speed Shop Scholar." In the last few months we have concentrated our efforts on the rear of the kart chassis. We have examined

and corrected our alignment, and properly maintained our bearings. This month we are going to shift our focus to the front of the kart.

The front end is very critical to the speed and handling of a racing chassis. Not only do the front hubs control

how the front tires roll down the track, but every component has a major effect upon how the kart turns and transfers weight.

To some racers, front end maintenance is limited to toe setting and camber. Take a seat and relax, the Speed Shop Scholar program is going to show you there are many more areas that need constant attention and care.

Let's begin with the front wheel hubs. Each hub has two bearings that need constant maintenance and care. Drag and resistance in the front hubs translates to slower straight line speed and if the drag is severe, it can also affect the kart in the corner by acting as a brake on that corner of the frame.

Cleaning and oiling the hub bearings accomplished by removing the outer seals from the bearings. Take a thin blade screwdriver or a razor knife and gently pry the seal upward. Once removed, you can use brake cleaner to remove any grit and dirt, then blow dry. Just a couple drops of

bearing oil circulated through each bearing is sufficient, and you can snap the seal back into place. I personally recommend removing the hubs before washing the kart and keeping them away from water. The water tends to accumulate in the area between the two bearings and greatly shortens bearing life.

If the bearings need to be replaced, support the hub and drive the bearings out with a pin punch. Reinstalla-

tion is just as simple. Using a solid block of metal or wood, drive the bearing solidly into position. Some of the new design front hubs allow you to remove a single snap ring and you can replace the bearings without any additional tools. This also eliminates any crush on the bearing, further decreasing drag.

Heim joints, tie rod ends, or whatever you choose to call them, are an area many times overlooked. Bent, worn out, and misaligned. These are things I see on a regular basis. Bent heim joints should be replaced immediately,

and are often a reason to look deeper into your complete front end for further damage. Worn heims cause the front spindles to work against each other, almost negating setting the toe at all.

Bent tie rods are another common problem. Even if the toe is reset, the geometry is affected. Bottom line, you do not want any bent or damaged parts on the front end of

your kart if you expect peak performance.

Using a small amount of anti seize on your tie rod ends will prevent the two dissimilar materials from corroding together, and make your future adjustments and replacements a much easier task.

The kingpin area is the single most overlooked area on a racing kart. Spindle bearings are usually completely forgotten about until there is a failure. Spindles get replaced from damage and the same kingpin bolt and camber adjuster get reused without any inspection. Something as simple as a bent kingpin bolt can have you chasing your tail for weeks on end.

Visual inspection needs to be performed weekly. This is imperative if you wish to keep your kart in top notch condition. Inspection needs to be ramped up if you are repairing crash damage. Don't just replace the obvious, dig into all the parts and be certain the parts are acceptable before continuing to use them.

Adding a drop of lubricant to the heim joints will extend their life. Just lubricate each one as part of your maintenance program.

Just as always, use your eyes and judgment in everything you do. If you take the time, you will make a difference in your maintenance program. See you next month!