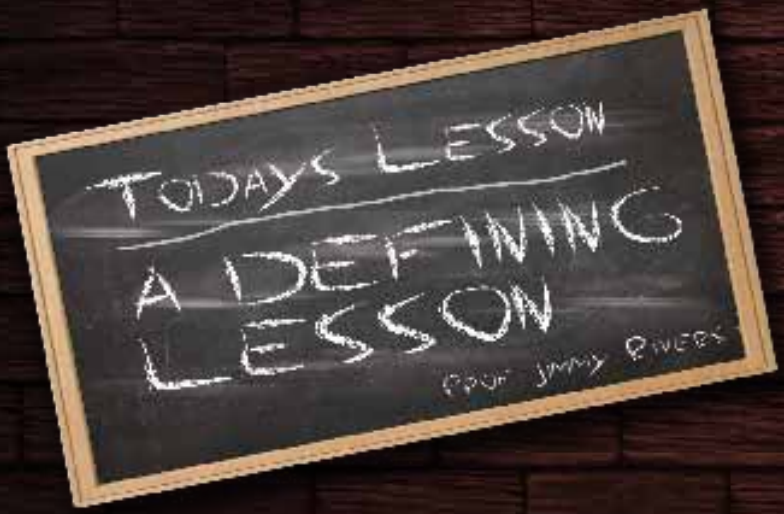

Speed Shop Scholar

Welcome to this month's edition of the Speed Shop Scholar. Walking through the pits and talking to other racers, terms and expressions with specific applications are used. For the novice racer, many of these are almost foreign in nature. This month we are going to explain some of the terminology used around the pits and the shop. In the coming months we are going to dig into deeper explanations and adjustments.

Ackerman: The rate at which one front tire turns in relationship to the other. Ackerman is necessary because the corner radius is different for each front tire.

Camber: The angle, or tilt, of the front tires as viewed from the front or the rear. Increased camber results in a smaller contact patch. Positive camber, generally used on the left front, is when the top of the tire is tilted out from the center of the kart. Negative camber is when the inside of the tire is tilted toward center.

Caster: Refers to the angle of the kingpin from front to rear. Changing caster will increase or decrease weight transfer as the steering wheel is turned.

Clone: The clone is the overhead valve engine based on the Honda design. The most popular engine in today's oval karting arena.

Cross: Crossweight is the percentage of the total weight that is on the diagonal between the right front and the left rear. Cross is the single most discussed percentage on a kart. Some racers feel cross is the answer for any situation.

Driver: The drive gear on the clutch. Drive gears are changed depending upon track size and desired rpm.

Durometer: Instrument used to check rubber hardness. Reads on a Shore hardness scale. The lower the reading, the softer the tire. Higher readings equate to harder tires.

Flathead: Karting's mainstay engine. Briggs and Stratton's original karting engine. Around since the 1970's and widely popular still today.

Loose: An on track condition when the rear of the kart is trying to step out. A lack of grip in the rear of the chassis. The rear is trying to pass the front.

Push: An extreme condition when the front tires will not grip and turn the chassis. Also referred to as plowing.

Rake: The difference in frame height from left to right, or from front to rear.

Stagger: The difference in circumference between tires on the same axle. Stagger helps the chassis to turn in the corners.

Tight: When the front of the chassis resists turning. Also when the chassis has too much overall grip and is not free through the corners. Extreme cases are referred to as "locked down."

Toe: The difference in alignment between the front tires. Toe affects the straight line speed and stability of the kart as well as the corner handling.