WC4 & RR4
The 4-Speed Racing Standard

Jerico®'s model WC4 transmission is widely recognized as the only 4-speed specifically engineered to survive the demanding shifting cycles required in modern NASCAR Winston Cup and Busch Grand National racing, no matter the type of competition -- whether it is on a short track, intermediate one, superspeedway, or road course.

The WC4 is the original transmission pioneered by the company, and it has become indispensable for winning on road courses. Drivers have reported that their cars reach top speed more quickly, qualify faster, and get in and out of the pits quicker with a Jerico® WC4.

In racing that demands special gearing, such as all-out qualifying or asymmetrical track layouts, the WC4 offers the unique capability of delivering the necessary gear selections - with nothing more than a fast, simple, ratio change. In fact, we've developed special overdriven gear sets for tracks that require alternating between third and fourth gears to maintain the engine in its peak powerband throughout a lap. Jerico® first applied this "tunability" use of overdriven gears in 1986 for the Rahmoc Winston Cup team with Neil Bonnett driving.

With more than a decade of racing championships to its credit, the design and engineering advantages of the WC4 are:

• Two styles of super-light magnesium cases: a top loader as required by NASCAR rules, or a top-and-bottom loading version (P/N RR4). An A206-aluminum alloy case is optional. Note: the aluminum case adds 6.5 lbs. of extra weight.

• Machining all gears from VAR (Vacuum Arc Remelt) premium steel, hot-rolled specifically for Jerico®. All gears are extensively CNC machined in-house to ultra-precise tolerances, according to our straight-cut design that has proven to be without peer in the competition marketplace. This gear design consumes less horsepower than conventional helical-cut gears and delivers more power to the rear axle.

• In-house machining, splining, and precision grinding of the mainshaft. It's made from premium steel forgings or solid, billet steel stock and rides on needle and roller bearings to reduce internal friction and heat.

• Installing Jerico®'s race-proven and proprietary 6-lug dog-ring and slider shifting mechanism for superior shifting "feel," and to eliminate breakage-prone synchronizers. The dog-ring / slider design makes for clean, positive, and reliable gear shifting. In fact, the faster the RPM, the smoother the gear engagement. Caged needle bearings are also standard in the cluster.

No Losses - Our Integral Coolant Pump is built into our transmission designs, and is not a vulnerable add-on.

• Supporting the tailshaft with a large premium caged bearing located in a CNC-machined boss in the tailshaft housing is optional (P/N KT-O). This additional bearing prevents transmitting movement and vibrations to the driveshaft and rear end that can damage them and allows using a lower level of transmission oil to eliminate weight. This option requires our billet yoke (P/N 1350YMW).

Coolant-Pump

Jerico®'s exclusive Integral Coolant-Pump is a unique lubricant-pumping mechanism that reduces the parasitic operating losses created by typical auxiliary coolant-pump methods used for transmission and rear-axle lubricants. It's lightweight, compact, efficient, and reliable.

The Integral Coolant-Pump system is a transmission-driven pump gear set that is basically bulletproof because it is designed to be coupled to the transmission's rotating internals, and not as an auxiliary-powered afterthought. Plus, it eliminates various fasteners, extra routing lines, and added weight used with conventional cooling methods for these lubricants. For example, a magnesium-cased Jerico® 4-speed with the 2-stage pumping unit weighs just 72 pounds - only four pounds more than the basic transmission.

Easy Access - The RR4 top- and bottom-loading transmission is designed for quick inspection during endurance racing. Shown here with the Integral Coolant Pump installed.