EPARTRADE Race Industry Now Spotlights the Rise of Super Crosskarts and Lightweight Motorcycle-Powered Race Platforms

The evolution of grassroots and performance-driven motorsports took center stage in Episode #613 of *Race Industry Now*, EPARTRADE's weekly webinar and podcast series, featuring **Mike Duran**, Founder of RiskTaker Racing Products. Hosted by **Don Taylor**, Director of the Stand 21 Safety Foundation and Motorsport Industry Association (MIA), the session explored the engineering, performance advantages, and market potential of **Super Crosskarts**—a rapidly emerging class of lightweight, motorcycle-powered race vehicles.

A New Performance Category Bridging Karting and Rallycross

Originating in Europe under FIA-sanctioned "crosscar" regulations, these single-seat, open-wheel vehicles are designed as an entry-level step toward rallycross competition. Duran is now spearheading their development and adaptation for the U.S. market, introducing enhanced variants he calls **"Super Crosskarts."**

Unlike traditional European-spec crosscars, which typically run smaller tires and 600–750cc engines, Duran's platforms incorporate:

- **1000cc motorcycle engines** (e.g., Kawasaki ZX-10R, Yamaha R1)
- **Larger 14-inch wheels and tires** for improved traction and gearing flexibility
- Expanded capability across **mixed surfaces** including asphalt, dirt, hill climbs, and short-course tracks

These modifications position Super Crosskarts as a hybrid platform—bridging karting agility with off-road durability and rallycross performance.

Engineering Focus: Power-to-Weight Optimization

At the core of the platform is an aggressive power-to-weight ratio. With total vehicle weights ranging from **850 to 900 pounds**, paired with high-revving motorcycle engines capable of **10,000–18,000 RPM**, the result is a highly responsive and dynamic driving experience.

Key technical characteristics include:

- **Sequential motorcycle gearboxes** for rapid shifting
- **Mid-engine layout** achieving near 50/50 weight distribution
- **Tube-frame chassis construction** for rigidity and safety

- **Long-travel suspension systems**, including Duran's upcoming proprietary "Super Suspension" design to increase articulation without binding

The vehicles rely heavily on **engine braking and lightweight dynamics**, reducing dependency on traditional braking systems and enhancing driver control.

Ground-Up Component Development

A major challenge in introducing crosskarts to the U.S. market has been the lack of dedicated components. Rather than adapting ATV or UTV parts, RiskTaker Racing Products has developed a **fully integrated component ecosystem**, including:

- Billet aluminum uprights, hubs, and driveline components
- Custom pedal assemblies with motorsports-grade master cylinders
- In-house designed engine mounts for multiple motorcycle platforms
- CNC-machined parts ensuring repeatability and precision manufacturing

"All components are CAD-designed and CNC-produced, ensuring consistency and performance across builds," Duran noted during the session.

Platform Lineup and Scalability

RiskTaker Racing Products currently offers multiple configurations:

- **FX750 Crosskart** – entry-level platform aligned with European specifications
- **FX10R Super Crosskart** – 1000cc, larger tire configuration
- **RTX0 Prototype Platform** – foundational design with modular build options
- **RTXT Super Truggy** – a larger, short-course-focused vehicle weighing approximately **1,069 lbs**, equipped with 15-inch wheels and off-road tires

The RTXT represents a strategic move into lightweight truck racing, targeting a segment traditionally dominated by significantly heavier and more expensive vehicles.

Cost Efficiency and Accessibility

One of the most compelling aspects of the platform is its **cost-to-performance ratio**. According to Duran:

- Entry into a fully built crosskart platform is achievable for **$40,000–$50,000**
- Comparable performance platforms (e.g., Radical race cars or trophy trucks) can exceed **$100,000 to $1M+**

By leveraging production motorcycle engines and lightweight construction, operating costs are also minimized:

- Reduced brake wear due to engine braking
- Lower tire and consumable costs
- Simplified engine maintenance using stock or near-stock configurations

This positions crosskarts as a viable **grassroots racing solution** with professional-level performance characteristics.

Safety and Driver Development

Despite their performance capabilities, crosskarts maintain a strong safety record. According to Duran, the platform has seen **no recorded fatalities since its inception in the 1980s**, attributed to:

- Full tubular roll cage construction
- 5-point harness systems
- Low center of gravity reducing rollover risk
- Lightweight structure minimizing impact forces

The vehicles also serve as an effective **driver training tool**, teaching car control, oversteer management, and throttle modulation—skills directly transferable to rally and circuit racing.

Market Growth and Industry Integration

Momentum for the category is building rapidly in North America. Key developments include:

- Launch of **RallyX Americas** series featuring crosskart classes
- Growing participation in **SCCA and hill climb events**
- Integration into **sim racing platforms**, increasing exposure among younger audiences

Duran projects significant growth over the next five years, comparing the trajectory of crosskarts to that of **Legends cars and side-by-side racing**, both of which evolved from niche categories into mainstream motorsports segments.

A Platform for the Next Generation of Racers

From young drivers transitioning out of karting to veteran racers seeking a lower-impact, high-performance platform, Super Crosskarts are attracting a diverse demographic. Their compact size, transportability, and affordability further expand accessibility—allowing even urban-based enthusiasts to participate.

As awareness grows and sanctioning bodies formalize regulations, RiskTaker Racing Products aims to position itself at the forefront of this emerging segment.

For more information, **watch the full webinar here.**