VA250 CAR PROJECT
OFFICIAL TECHNICAL SPECIFICATIONS

The VA250 Car Project is a purpose-built American stock car land speed record program engineered to pursue sustained speeds in excess of 250 miles per hour. Designed, built, and assembled in Virginia, the vehicle represents a fusion of advanced motorsports engineering, aerodynamics, safety systems, and American manufacturing excellence.

PROGRAM OVERVIEW

- Target Record: Stock Car Land Speed Record (250+ MPH)
- Driver: Kyle Petty
- Builder: Joey Arrington (son of legendary stock car driver Buddy Arrington)
- Educational Partner: University of Virginia – Motorsports Program
- Sanctioning / Technical Partner: International Hot Rod Association (IHRA)
- Run Location: Space Florida, Cape Canaveral, Florida
- Program Purpose: Honor America’s 250th Anniversary

CHASSIS & STRUCTURE

- Purpose-built land speed stock car chassis
- Reinforced safety cell with integrated roll structure
- Composite and steel construction optimized for rigidity and high-speed stability
- Designed for sustained straight-line operation at extreme speeds

AERODYNAMICS

- Wind tunnel validated aerodynamic profile
- Body design optimized for drag reduction and directional stability
- Emphasis on crosswind control and surface stability
- Custom aerodynamic solution tailored for Space Florida conditions

POWERTRAIN & DRIVETRAIN

- High-output competition engine configuration
- Engineered for sustained high-load, high-speed operation
- Purpose-built high-speed drivetrain components
- Reinforced transmission and driveline systems

WHEELS, TIRES & BRAKING

- High-speed rated racing tires for land speed competition
- Custom wheel configuration optimized for straight-line stability
- Competition-grade braking system for controlled deceleration

SAFETY SYSTEMS

- Full roll cage and reinforced driver containment structure
- Fire suppression system
- Multi-point racing harness and competition containment seat
- Designed to meet land speed racing safety protocols

DATA & TELEMETRY

- Integrated data acquisition systems
- Real-time monitoring of speed, stability, and vehicle systems
- Post-run data analysis for engineering validation

ENGINEERING & EDUCATION

- Active participation by University of Virginia Motorsports students
- Student involvement in aerodynamic analysis and data review
- Real-world STEM platform tied to America’s 250th Anniversary

Additional technical details available upon request. Official project information available at www.VA250CarProject.com