

MODERN AMUSEMENT

HEAVY INDUSTRY & EQUIPMENT ENGINEERING

TECHNICAL SPEC SHEET

Equipment Model: MODERN PR-360-P Trailer-Mounted Hydraulic Pendulum Ride
Application: High-yield mobile carnival thrill attraction engineered for zero-crane hydraulic setup, high-density passenger throughput, and international highway transport compliance.

1.5 - 2 Hrs
HYDRAULIC SETUP TIME

23 Servos/Hr
MAX OPERATIONAL SPEED

17-Digit VIN
DOT / CE ROAD LEGAL

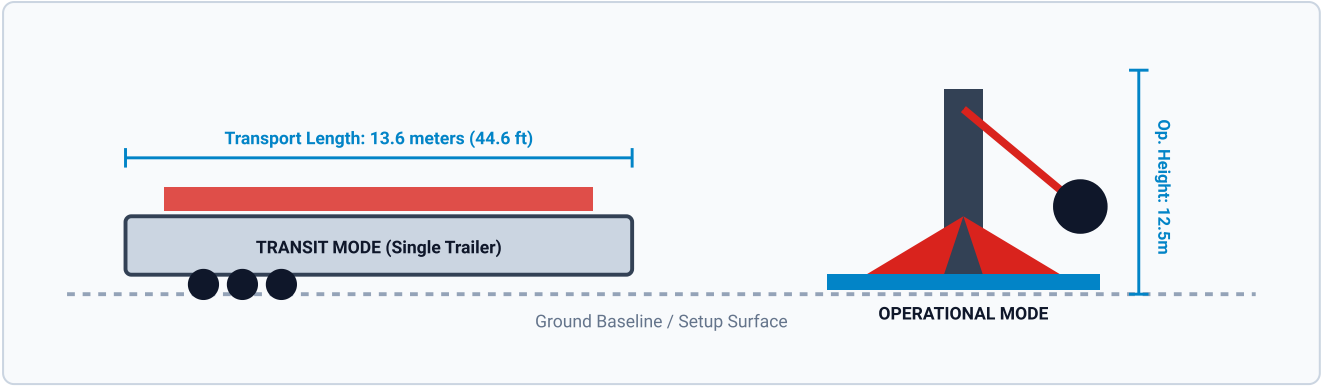
SECTION 1: MECHANICAL & OPERATIONAL SPECIFICATIONS

SPECIFICATION PARAMETER	ENGINEERING VALUE	COMPLIANCE STANDARD
Passenger Capacity	16 / 24 Seats (Custom configuration available)	ASTM F24 / EN 13814
Maximum Swing Angle	± 120 Degrees (Dynamic pendulum motion)	Dual Hydraulic Limit Sensor
Gondola Rotation Speed	0 – 12 RPM (Variable Frequency Controlled)	Soft-Start VFD Inverter
Maximum Operational Height	12.5 Meters (Full swing extension)	Structural FEA Calculation
Operating Wind Speed Limit	15 m/s (33 mph / 54 km/h)	Hub Anemometer Shutdown
Stowed Wind Speed Resistance	38 m/s (85 mph / 136 km/h)	EN 13814 Structural Stability
Structural Frame Steel Class	Q355B Heavy Structural Steel	NDT Weld Certified (Ultrasound)
Drive Motor Power Rating	45 kW Main Swing / 15 kW Gondola Drive	3-Phase 380V/440V 50Hz/60Hz

SECTION 2: HYDRAULIC DEPLOYMENT ARCHITECTURE

HYDRAULIC SUBSYSTEM	TECHNICAL DESCRIPTION
Erection Cylinder System	Dual-action telescoping hydraulic rams with mechanical safety pin locking mechanism.
Hydraulic Outriggers	4× Heavy-duty extendable hydraulic arms with wide steel ground pressure spreader plates.
Pressure Safety Systems	Pilot-operated dual check valves integrated on all cylinders to prevent drop during pressure loss.

SECTION 3: TRANSPORT FOOTPRINT & CLEARANCE DIAGRAMS



SECTION 4: HIGHWAY COMPLIANCE & CHASSIS SPECS

CHASSIS PARAMETER	ENGINEERING REQUIREMENT
VIN Identification	Cold-stamped 17-digit ISO 3779 / US DOT VIN on main chassis tongue.
Axle Configuration	Triple commercial axles (Brand: BPW/FUWA) with 13-ton rating per axle.
Brake Architecture	Dual-line pneumatic air brake system with Wabco Anti-lock Braking System (ABS).
Transport Width / Height	Width: 2.55 m (102 in) Height: 3.95 m (13.0 ft) – Permit-Free Highway Transit.
Tire Specification	High-speed highway-rated tires (DOT / E-Mark certified 385/65 R22.5).
Signal / Signal Wiring	24V LED highway tail, brake, side-marker, and indicator lamps (7-pin socket).

SECTION 5: INTERNATIONAL SAFETY & QUALITY CERTIFICATIONS

ASTM F24 Standard Amusement Ride Design, Inspection, and Manufacturing Compliance certified.	EN 13814 European Norm Fairground and Amusement Park Machinery Safety Validation.
ISO 9001:2015 Quality Factory manufacturing and structural welding quality assurance system.	CE Electrical Directive IP66 Waterproof electrical control cabinets with dual E-Stop integration.

Approved by Chief Engineering Officer: Zhengzhou Modern Industry Co., Ltd. Factory Inspection & FAT Testing Passed	Document Revision: 2026.v4 Contact: tech@modernrides.com
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