



# 2015 AHRMA Sidecar Roadracing Rules

A supplement to the 2015 Handbook

## 10.10 SIDECARS

**SIDECAR ROADRACING MISSION STATEMENT:** To preserve the rich and full history of the golden era of Sidecar roadracing by maintaining a venue to showcase the types of roadracing Sidecar outfits that made the sport an integral part of the historic Grand Prix experience.

**10.10.a SIDECAR OUTFITS:** Sidecar outfits shall comply with AHRMA requirements listed in section 9.3 TECHNICAL INSPECTION, 9.4 LOCKWIRE REQUIREMENTS, 9.5 NUMBERS AND NUMBER PLATES and all other applicable AHRMA rules except as detailed below.

**10.10.b DRIVER AND PASSENGER:** Drivers of Sidecar outfits shall meet all current AHRMA requirements listed in section 3.4 RIDER ELIGIBILITY and 9.1 RIDER ELIGIBILITY. Passenger must be 18 years of age with an AHRMA race membership, a working knowledge of the Sidecar outfit and an understanding of AHRMA/racetrack rules. Passenger may wear leather high-top footwear that covers the ankle and is duct-taped to the bottom edge of the leather pants. The Passenger may only serve in this capacity unless section 3.4 RIDER ELIGIBILITY and 9.1 RIDER ELIGIBILITY are met.

**10.10.c SPORTSMANSHIP:** The Sidecar class is designed to be fun, safe and competitive, and as such, good sportsmanship, honesty and a sense of fair play should exist at all times. It is important to recognize that **all Sidecar classes may be on the track at the same time**. Driving maneuvers liable to hinder other Sidecars, such as premature direction changes, deliberate crowding or blocking or any other abnormal change of direction are strictly prohibited and shall be penalized, according to the importance and repetition of the offenses, at the sole discretion of the AHRMA Roadrace Director. The repetition of dangerous driving, even involuntarily, shall also be subject to penalty at the sole discretion of the AHRMA Roadrace Director, penalties shall range from verbal warnings to suspension.

**10.10.d COMPETITIVE EQUALITY:** Any machine consistently demonstrating a significant power advantage shall be subject to restriction at the sole discretion of the AHRMA Roadrace Director.

### 10.10.1 CLASSES

- a) **Period 1 Vintage Sidecar (P1):** Front-exit sidecars. Air-cooled, one- or two-cylinder, two- or four-stroke engines, built before December 31, 1967. Two-stroke, 350cc maximum; four-stroke, 650cc overhead valve and 750cc sidevalve maximum.
- b) **Period 2 Super Vintage Sidecar (P2):** Front-exit sidecars. Air-cooled, one- or two-cylinder, two- or four-stroke engines, built before December 31, 1972. Two-stroke, 500cc maximum; four-stroke, 750cc maximum.
- c) **Period 3 Formula Vintage Sidecar (P3):** Front- or rear-exit sidecars. Two-stroke, air- or water-cooled, up to three cylinders, 750cc maximum; four-stroke, air-cooled 1100cc maximum engines; built before December 31, 1982.
- d) **Exhibition Formula 1/Formula 2:** Modern Sidecars consistent with the rules of FIM, SRA-East or SRA-West.

### 10.10.2 TECHNICAL REQUIREMENTS: (Construction)

**10.10.2.1 GENERAL DESIGN:** An outfit or Sidecar is a three-wheel vehicle leaving two tracks, with only the rear wheel driving and only the front wheel steering, originating from a motorcycle frame. The frame may be cut down or altered to provide either a sitting or kneeling position for the driver. The driver's point of contact with steering controls must be rigidly attached to front forks or other steering assembly. *Center hub steering is prohibited.*

**10.10.2.2 FRAME:** Steel tube frame construction only: No stressed skin or monocoque construction. Sidecar chair must be rigidly affixed to cycle portion of the outfit by a minimum of four rigid mechanical or welded connections. Chair may be on the right or left of the cycle portion of the outfit. Outfit must be equipped with appropriate handholds for the passenger, including – but not limited to – a passenger handhold on the rear, outside of the outfit opposite the chair and to the back of the driver. All handholds are of the closed-loop type. Any single projecting handholds must have a minimum 2" (50mm) diameter ball at the end.

**10.10.2.3 SWINGARM:** Swingarms must be two-sided, of period design and materials, and have a shock absorber located on each side without secondary linkage (OEM excepted; e.g. Vincent and NSU). Both 'sitter' and 'kneeler' designs are eligible.-

**10.10.2.4 DRIVER POSITION & PASSENGER:** Driver must be positioned generally behind the engine. The driver and passenger in normal riding positions must be completely visible from above, with the exception of arms, legs and feet.

**10.10.2.5 STREAMLINING AND/OR BODYWORK:** The sidecar wheel, rear wheel, primary and secondary drive and rear suspension shall be adequately protected to preclude the driver or passenger from becoming entangled. All streamlining and/or bodywork shall be consistent with applicable period. Period dustbin-style fairings are encouraged. Any downforce-generating devices and designs – including, but not limited to – airfoils, spoilers and ground-effect tunnels are prohibited. No part of the outfit may extend longitudinally more than 12" (305mm) forward of the front tire and/or rearward of the rear tire. Bodywork shall not impede the movement of the driver or passenger at any time. Streamlining and/or bodywork shall be detachable for tech inspection.

**10.10.2.6 BATTERY:** The battery must be mounted in such a way that neither the driver nor passenger can come into contact with the battery or its contents. The battery must be secured to the sidecar.

**10.10.2.7 ENGINE POSITION:** The engine must be behind the steering head and in front of the driver. The engine must be positioned in such a way that the centerline of the engine (the point midway between the centerline of outermost cylinders) shall not extend over 6.3" (160mm) from the centerline of the rear wheel. For longitudinal engines such as BMW or Moto Guzzi, substitute the center of gravity of the engine for the engine centerline. Drive must be transmitted through the rear wheel only.

**10.10.2.8 GEARBOX:** Applicable period components (or functionally accurate reproductions).

**10.10.2.9 OIL CONTAINMENT:** All oil containment systems shall comply with Section 9.3 TECHNICAL INSPECTION, subsection (f). A liquid-tight container around the bottom of the engine is required; oil-absorbing material shall be securely retained inside that container. All breather tubes from catch cans must be routed into the oil containment pan.

**10.10.2.10 OIL COOLERS:** Where fitted, oil coolers shall comply with Section 9.3 TECHNICAL INSPECTION, subsection (d). Coolers must be located so as to be generally visible to the driver and passenger in their operating positions. It is recommended that an oil pressure device be used to help prevent spillage.

**10.10.2.11 FUEL SYSTEM:** The fuel cap must securely close and not open by accident. The fuel tank should be located in such a place as to protect it from impact and/or be foam-filled to reduce spillage should a rupture occur. All fuel lines must be reinforced and positively anchored in such a way to protect them from impact. Fuel capacity shall be a maximum of 10.56 gallons (40 liters).

**10.10.2.12 EXHAUST:** All sidecars must be fitted with a noise silencer or muffler. All pipes or exhausts otherwise terminating in a sharp edge must have a rolled edge added or a bull ring welded in place.

**10.10.2.13 SAFETY SWITCHES AND CUT-OUT (SHUT-OFF) DEVICES:** All outfits must be equipped with a functional "Master" switch mounted within reach of both the driver and passenger. The switch must be capable of stopping a running engine and turn off all other electrical systems. The switch plate and surrounding area must be labeled for identification by the driver, passenger, corner workers and other personnel. The mounting place of the switch and a 1" (25.4mm) square surrounding area shall be painted red. It is strongly recommended that an ignition cut-out be fitted to operate in the event that the driver leaves the machine. This ignition cut-out must interrupt the primary circuit and must be wired for the supply and return of the current. It must be placed as near to the center of the machine as possible and must be operated by a non-elastic cord of adequate length and thickness, and be secured to the driver. A spiral cord (similar to telephone cord) of 39.37" (1000mm) maximum extended length is permitted.

### **10.10.3 Period 1 (P1) VINTAGE SIDECAR OUTFITS**

P1 sidecars are limited to outfits built before December 31, 1967 and outfits constructed after such date that are consistent in design and construction with outfits actually built in this classic period, subject to the following restrictions:

**10.10.3.1 ENGINES:** Air-cooled, one- or two-cylinder, two- or four-stroke, built before December 31, 1967. Two-stroke, 350cc maximum; four-stroke, 650cc overhead valve and 750cc sidevalve maximum. Carbureted only. Fuel-injection, supercharging and turbocharging are prohibited.

Examples:

- AJS 7R
- BMW Rennsport, R50/5 and R60/5 w/OEM (stock) engine internals all gaskets must be in their original locations, maximum 26mm carburetors and four-speed gearbox
- Bridgestone 350
- Ducati bevel-drive single
- Honda CB/CL 450 w/OEM (stock) engine internals and OEM carburetors
- Kawasaki 350 Avenger
- Matchless G50
- Norton Manx
- Suzuki T350
- Vincent 1000cc twins (by special exemption)
- Yamaha TR2, YM1, YDS5

**10.10.3.2 BRAKES:** Working brakes on front and rear wheel are mandatory; sidecar optional. All brakes are to be driver-operated only. Drum or single disc per wheel, provided that all disc brake components (disc rotor, caliper and master cylinders) are components (or functionally accurate reproductions) actually available in the applicable period. Friction linings and pads are unrestricted.

**10.10.3.3 WHEELS & TIRES:** Front and rear wheels must be of wire-spoke construction; sidecar wheel may be of solid construction. No slicks or hand-cut tires. Wheels are to be minimum 16" (406mm) diameter front and rear, and minimum 8" (203mm)

diameter on the sidecar. Tires are to be a maximum 4.50" (114mm) section width on front and rear, and 4.80" (121mm) section width on the sidecar.

#### **10.10.4 Period 2 (P2) SUPER VINTAGE SIDECAR OUTFITS**

P2 sidecars are limited to outfits built before December 31, 1972 and outfits constructed after such date that are consistent in design and construction with outfits actually built in the period, subject to the following restrictions:

**10.10.4.1 ENGINES:** Air-cooled, one- or two-cylinder, two- or four-stroke, built before December 31, 1972. Two-stroke, 500cc maximum; four-stroke, 750cc maximum.

All engines in this class restricted to stock valve sizes, and carb venturi diameter of 34mm maximum. Carbureted only. Fuel-injection, supercharging and turbocharging are prohibited.

Examples:

- BMW Rennsport, up to 750cc displacement; early five-speed transmissions ( /6 models) permitted.
- BSA 650
- Ducati bevel-drive 750
- Honda 450/500 twin
- Moto Guzzi 750
- Norton Commando 750 (850 sleeved to 750cc).
- Suzuki T500 with stock internals (no TR500 components or metal removal).
- Triumph 650/750
- Yamaha XS650, up to 750cc displacement (17-tooth front sprocket maximum)
- Yamaha TR3, RD350
- Yamaha RD400 (by special exemption)

**10.10.4.2 BRAKES:** Working brakes on front and rear wheel are mandatory; sidecar optional. All brakes are to be driver operated only. Drum or single disc per wheel, provided that all disc brake components (disc rotor, caliper and master cylinders) are components (or functionally accurate reproductions) actually available in the applicable period. Friction linings and pads are unrestricted.

**10.10.4.3 WHEELS & TIRES:** Front and rear wheels must be of wire-spoke construction; sidecar wheel may be of solid construction. No slicks or hand-cut tires. Wheels are to be minimum 15" (381mm) diameter front and rear, and minimum 8" (203mm) diameter on the sidecar. Tires are to be a maximum 5.0" (127mm) section width on front, rear and sidecar.

#### **10.10.5 Period 3 (P3) FORMULA VINTAGE SIDECARS**

P3 Sidecars are limited to outfits built before December 31, 1982, and outfits constructed after such date that are consistent in design and construction with outfits actually built in the period, subject to the following restrictions:

**10.10.5.1 ENGINES:** Two-stroke, air- or water-cooled, up to three cylinders, 750cc maximum; four-stroke, air-cooled 1100cc maximum; built before December 31, 1982. Most manufacturers have multiple powerplants that are acceptable; snowmobile engines are also eligible. Carbureted only. Fuel-injection, supercharging and turbocharging are prohibited.

**10.10.5.2 DIMENSIONS:** Height: 31.5" (800mm) maximum overall.

Passenger Platform: 31.5" by 11.8" (800mm by 300mm) minimum dimensions, measured (5.9" (150mm) above the platform.

Wheelbase: 65" (1651mm) maximum.

Minimum ground clearance is three inches, measured over the entire length and width of the outfit, race-ready, with driver, passenger and fuel, and with the handlebars in the straight position. No device is permitted to reduce this clearance during the course of the race.

**10.10.5.3 WHEELS & TIRES:** The minimum diameter of the inflated tire must be 15.7" (400mm). Slick tires are permitted. Wheel rims should be 13" (330mm) in maximum diameter. Maximum tire width is 8" (203mm) for the front and 10" (254mm) for the chair and rear tire.

**10.10.5.4 WEIGHT:** 300lbs (136.2kg) minimum without fuel. The use of ballast to attain the weight is forbidden.

#### **10.10.6 EXHIBITION SIDECARS**

**10.10.6.1 FORMULA 1/FORMULA 2:** Modern F1 or F2 sidecars consistent with the rules of FIM, SRA-East or SRA-West.