

2017 AHRMA Sidecar Roadracing Rules

Final rules for the 2017 season are outlined below. Words that are new are underlined, a strike-through indicates wording that has been removed.

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 definitions and requirements listed in sections 2. DEFINITIONS, 9.3 TECHNICAL INSPECTION, 9.4 LOCKWIRE REQUIREMENTS, 9.5 NUMBERS AND NUMBER PLATES, 9.7 MECHANICAL REQUIREMENTS FOR VINTAGE CLASSES 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 ROADRACE PROCEDURES: All roadrace procedures in Section 3.6 are applicable. The Sidecar Team consists of the driver, the passenger (co-pilot) and the Sidecar outfit. The Sidecar Team must start and finish together. If in the event either the driver and/or passenger (co-pilot) is ejected from the Sidecar outfit, the Sidecar Team will be immediately black-flagged and treated as a crashed vehicle for scoring purposes. In the event of a stall at the starting grid the Sidecar Team may pull to the side and restart the outfit within 50 yards of grid position after all other outfits have left the grid. If unable to start, the Sidecar outfit it will be placed as to not obstruct any other competitors and the driver and passenger will remove themselves from the track. At no other time during the race will the driver and/or passenger be able to dismount the Sidecar outfit – this will be considered a crash or mechanical failure, and roadrace procedure protocol will be in place.

10.10.d 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.e 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) **Vintage Sidecar (SC1):** Front-exit sidecars. Air-cooled, one- or two-cylinder, two- or four-stroke, built before December 31, 1967. Two-stroke piston-port only, 350cc maximum. Four-stroke, 650cc overhead valve and 750cc sidevalve maximum. Carbureted only. Fuel injection, supercharging and turbocharging are prohibited. No short-stroke engines permitted. Stock stroke length and stock bore plus allowable overbore of .060" singles and .040" twins. Motorcycle-based powerplants only.
- b) **Stock Production Sidecar (SC2):** Front-exit sidecars. Air-cooled, one- or two-cylinder, two- or four-stroke engines, built before December 31, 1972. Two-stroke, piston-port only, 500cc maximum. Four-stroke, 750cc maximum. Carbureted only, 34mm maximum venturi. Carburetor restrictor plates, fuel injection, supercharging and turbocharging are prohibited. Stock stroke with crankshafts phased as per the manufacturer's intent and stock bore plus allowable overbore of .060" singles and .040" twins. Stock valve sizes. Motorcycle-based powerplants only.
- c) **Lost Era Sidecar (SC3):** Front-exit sidecars. Air-cooled, two- or three-cylinder two-stroke, two-, three- or four-cylinder four-stroke engines, built before December 31, 1977. Two-stroke, piston-port or reed-valve, 550cc maximum. Four-stroke, 836cc maximum, two valves per cylinder. Altered stroke and/or re-phased crankshafts beyond the manufacturer's intent are permitted. Carbureted permitted. Fuel injection permitted as per manufacturer original application. Supercharging and turbocharging are prohibited. Stock bore plus allowable overbore must be within the maximum displacement allowed. Motorcycle- and snowmobile-based powerplants only.
- d) **Formula Classic Sidecar (SC4):** Front- or rear-exit sidecars. Air- or water-cooled, two- or four-stroke engines, built before December 31, 1982. Two-stroke, 900cc maximum. Four-stroke, 1300cc maximum; multi-valve engines permitted. Altered stroke and/or re-phased crankshafts beyond the manufacturer's intent are permitted. Carbureted permitted. Fuel injection permitted as per manufacturer original application. Supercharging and turbocharging are prohibited. Stock bore plus allowable overbore must be within the maximum displacement allowed. Motorcycle-, snowmobile- and auto-based powerplants only.

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. 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 partial or entire frame 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 recommended 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: Swing arms 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. The driver must keep both hands in contact with the grips at all times and must be able to operate the clutch and front brake respectively unless intending to signal leaving the racing surface.

10.10.2.5 STREAMLINING AND/OR BODYWORK: The sidecar wheel, rear wheel, primary and secondary drives 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 down force-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 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 tank must be securely fastened above the lower frame rails. No part of the fuel tank will be allowed below the frame rails. 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 CARBURETION: Flat-slide or Lectron-type and injection-type carburetors are not permitted. "Power jet" and "pumper" type carburetors are not permitted unless the pumper mechanisms are removed and replaced with a block-off plate.

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

10.10.2.14 SAFETY SWITCHES AND CUT-OUT (SHUT-OFF) DEVICES: 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 SC1 VINTAGE SIDECAR

SC1 sidecars are limited to front-exit 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 piston-port only, 350cc maximum. Four-stroke, 650cc overhead valve and 750cc sidevalve maximum. Carbureted only. Fuel injection, supercharging and turbo charging are prohibited.

No short-stroke motors permitted. Stock stroke length and stock bore plus allowable overbore of .060" singles and .040" twins. Motorcycle-based powerplants only.

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 (KO ONLY)
- Kawasaki 350 Avenger
- Matchless G50
- Norton Manx
- Suzuki T350
- ~~Vincent 1000cc twins (by special exemption)~~
- Yamaha TR2, YM1, YDS5

10.10.3.2 DIMENSIONS: The front and rear wheel of the outfit shall be no more than 3" (76mm) out of line, measured center-to-center of the front and rear tires. The minimum track of the outfit shall be 32" (813mm), measured center-to-center of the sidecar tire and the furthest of either the front or the rear tire. The maximum track of the outfit shall be 44" (1118mm), measured center-to-center of the sidecar tire and the furthest of either the front or the rear tire. The maximum width of the outfit shall be 72" (1829mm). The minimum clearance of the front tire to the outfit shall be 1" (25mm). The front fork assembly and/or front wheel assembly shall not touch the streamlining and/or bodywork, regardless of the position of the handlebars. The minimum ground clearance of the outfit shall be 3" (76mm), measured over the entire length and width of the outfit, race ready, with driver, passenger, and fuel, and with the handlebars in the straight-ahead position. Any device, other than operational suspension travel, that could allow the ground clearance to be reduced during the course of the race, is prohibited.

10.10.3.3 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.

10.10.3.4 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, measured at the tread, are to be a maximum 4.50" (114mm) on front and rear, and 4.80" (121mm) ~~section width~~ on the sidecar.

10.10.4 SC2 Stock Production Sidecar

SC2 sidecars are limited to front-exit 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 engines, built before December 31, 1972. Two-stroke, piston-port only, 500cc maximum. Four-stroke, 750cc maximum.

All engines in this class are restricted to stock valve sizes and carb venturi diameter of 34mm. Carbureted only. Carburetor restrictor plates, fuel injection, supercharging and turbo charging are prohibited. Stock stroke with crankshafts phased as per the manufacturer's intent and stock bore plus allowable overbore of .060" singles and .040" twins. Stock valve sizes. Motorcycle-based powerplants only.

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 (no TR500 components)
- Triumph 650/750
- Yamaha XS650, up to 750cc displacement (17-tooth front sprocket maximum)
- Yamaha TR3, ~~R5 RD350~~
Yamaha RD400 (by special exemption)

10.10.4.2 DIMENSIONS: The front and rear wheel of the outfit shall be no more than 3" (76mm) out of line, measured center-to-center of the front and rear tires. The minimum track of the outfit shall be 32" (813mm), measured center-to-center of the sidecar tire and the furthest of either the front or the rear tire. The maximum track of the outfit shall be 44" (1118mm), measured center-to-center of the sidecar tire and the furthest of either the front or the rear tire. The maximum width of the outfit shall be 72" (1829mm). The minimum clearance of the front tire to the outfit shall be 1" (25mm). The front fork assembly and/or front wheel assembly shall not touch the streamlining and/or bodywork, regardless of the position of the handlebars. The minimum ground clearance of the outfit shall be 3" (76mm), measured over the entire length and width of the outfit, race ready, with driver, passenger, and fuel, and with the handlebars in the straight-ahead position. Any device, other than operational suspension travel, that could allow the ground clearance to be reduced during the course of the race, is prohibited.

10.10.4.3 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.

10.10.4.4 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) tire tread width on front, rear and sidecar.

10.10.5 SC3 Lost Era Sidecars

SC3 Sidecars are limited to front-exit outfits built before December 31, 1977 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: (Content replaced by): Air-cooled, two- or three-cylinder two-stroke, two-, three- or four-cylinder four-stroke engines, built before December 31, 1977. Two-stroke, piston-port or reed-valve, 550cc maximum. Four-stroke, 836cc maximum, two valves per cylinder. Altered stroke and/or re-phased crankshafts beyond the manufacturer's intent are permitted. Carbureted permitted. Fuel injection permitted as per manufacturer original application. Supercharging and turbocharging are prohibited. Stock bore plus allowable overbore must be within the maximum displacement allowed.

Examples:

- BMW R75/6
- BSA twins and triples
- Ducati bevel-drive 750
- Honda 750
- Kawasaki KZ750 twin, H1
- Moto Guzzi 750
- Norton Commando 750
- Suzuki GS750, T500 (no TR500 components), GT380/550
- Triumph twins and triples
- Vincent 1000cc twins
- Yamaha XS650, XS750 triple, RD350/400

10.10.5.2 DIMENSIONS: May replicate those of either SC2 or SC4.

10.10.5.3 WHEELS & TIRES: May replicate those of either SC2 spoke wheels or SC4 type mag wheels. Minimum diameter of the inflated tire must be 15.7" (400mm). Slick tires are permitted. Wheel rims should be 10" (255mm) minimum, 13" (330mm) maximum diameter. Maximum tire width is 7" (177mm) for the front, rear and chair tire.

10.10.5.4 (DELETE)

10.10.6 SC4 Formula Classic Sidecars

SC4 sidecars are limited to front- or rear-exit sidecars outfits built before December 31, 1981 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:

10.10.6.1 ENGINES: Air- or water-cooled, two- or four-stroke engines, built before December 31, 1982. Two-stroke, 900cc maximum. Four-stroke, 1300cc maximum; multi-valve engines permitted. Altered stroke and/or re-phased crankshafts beyond the manufacturer's intent are permitted. Carbureted permitted. Fuel injection permitted as per manufacturer original application. Supercharging and turbocharging are prohibited. Stock bore plus allowable overbore must be within the maximum displacement allowed. Motorcycle-, snowmobile- and auto-based powerplants only.

10.10.6.2 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.

10.10.6.3 WHEELS & TIRES: The minimum diameter of the inflated tire must be 15.7" (400mm). Slick tires are permitted. Wheel rims should be 10"(255mm) minimum, 13"(330mm) in maximum diameter. Maximum tire width is 8" (203mm) for the front and 11" (254mm) for the chair and rear tire.

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

10.10.7 MODERN SIDECARS

10.10.7.1 FORMULA 1: F1 Sidecars will run under FIM rules.

10.10.7.2 FORMULA 2: F2 Sidecars will run under FIM rules. F2 Sidecars with engines displacing more than 600cc will be scored with F1.

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