

AORRacing Adrenaline Off-Road Racing 2010 Truck & Buggy Rules

AORRacing has final say on any disputes and/or classification of machines to be raced.

1. The Truck & Buggy endurance race will begin as stated for that race. It will be a 2 hour race.
2. The Truck & Buggy short-course race will be a 2 heat and 1 main race.
3. Registration will be held Saturday from 3pm – 6pm and Sunday 7am-9am for short-course.
4. Drivers are responsible for the actions of their entire pit crew.
5. AORRacing does not provide medical insurance for competitors, and we urge you not to compete without it. Medical insurance is the sole responsibility of the competitor.

Classes:

We are following the TORC SERIES rules.

Trucks:

PRO 4X4 TRUCK

Specs: A custom built full size four-wheel drive pickup truck. The vehicle must be a standard manufacturer production model available to the general public in the United States, produced in amounts of a minimum of 5,000. Manufacturer body styles and engines must be from the same manufacturer.

Horsepower: 8 cylinders, 750 to 900 HP

Suspension: Front wheel travel limits 18 inches; rear wheel travel limit 20 inches.

Chassis: Maximum wheel base 122 inches; minimum wheel base 113 inches; maximum track width 93 inches.

Body: Maximum body width 80 inches.

Weight: Minimum weight with driver 4,000 pounds; minimum front axle weight 48% of total truck weight.

Tire Size: 35 x 12.50 maximum.

Numbering: 1-99

PRO 2WD TRUCK

Specs: A custom built full size two-wheel drive pickup truck. The vehicle must be a standard manufacturer production model available to the general public in the United States, produced in amounts of a minimum of

5,000. Manufacturer body styles and engines must be from the same manufacturer

Horsepower: 8 cylinders, 750 to 900 HP

Suspension: Front wheel travel limits 18 inches; rear wheel travel limit 20 inches.

Chassis: Maximum wheel base 120 inches; minimum wheel base 113 inches; maximum track width 93 inches.

Body: Maximum body width 80 inches.

Weight: Minimum weight with driver 3,750 pounds; minimum front axle weight 48% of total truck weight.

Tire Size: 35 x 12.50 maximum.

Numbering: 1-99

PRO LIGHT 2WD TRUCK or 7S

Specs: A custom built, light duty two-wheel drive pickup truck. The vehicle must be a standard manufacturer production model available to the general public in the United States, produced in amounts of a minimum of

5,000. Manufacturer body styles and engines must be from the same manufacturer.

Horsepower: 4 cylinders, 300 HP

8 cylinders, 325 HP

Suspension: Front wheel travel limits 12 inches; rear wheel travel limit 14 inches.

Chassis: The standardized chassis must be constructed in accordance to TORC SERIES specs.

Body: Light duty body styles such as Ford Ranger, Nissan Frontier, Toyota Tacoma

Weight: Minimum weight with driver is 2,800 pounds for 4 cylinders and 2900 pounds for V-8s. Minimum

front axle weight is 45% of total truck weight.

Tire Size: 32 x 11.50, D.O.T. approved.

Numbering: 1-99

FORMULA 4X4 TRUCK

Specs: A four-wheel drive sport utility class with no longer than 110" wheel base, or 82" track width.

Horsepower: 400 + HP

Suspension: Must be stock concept.

Chassis: Stock frame.

Body: SUV

Weight: 3,300 to 4,100 lbs depending on the motor.

Tire Size: 33 x 12:50 D.O.T. approved.

Number Series: 400 - 499

ENDURO TRUCKS

Specs: A two wheel drive pickup truck with a ¾ ton or smaller chassis.

Engine: GM 350, Mopar 360, Ford 351 Windsor or smaller

Suspension: Stock suspension parts and locations.

Chassis: Must remain stock but reinforcing is allowed.

Weight: Trucks less than ½ Ton chassis must weigh at least 3,500 lbs. **7E WITH V8**

Tire Size: 33 x 12.50, D.O.T. approved.

Number Series: 500 – 599

7X 4WD MINI TRUCKS

Specs: A four wheel drive pickup truck smaller than 1/2 ton chassis.

Engine: 4 cylinders

Suspension: Stock suspension parts and locations.

Chassis: Must remain stock but reinforcing is allowed.

Weight: Trucks less than ½ Ton chassis must weigh at least 3,500 lbs.

Tire Size: 32 x 11.50, D.O.T. approved.

Number Series: 500 – 599

7E 2WD MINI TRUCKS

Specs: A two wheel drive pickup truck smaller than 1/2 ton chassis.

Engine: 4 cylinders

Suspension: Stock suspension parts and locations.

Chassis: Must remain stock but reinforcing is allowed.

Weight: Trucks less than ½ Ton chassis must weigh at least 3,500 lbs.

Tire Size: 32 x 11.50, D.O.T. approved.

Number Series: 500 – 599

Go to <http://www.torcseries.com/rules.php> for a complete list with details

PRO 4X4 TRUCK

DEFINED AS- Vehicles built or manufactured as a full size four wheel driven type utility vehicle, capable of being driven through the front wheels. Vehicle must be a standard manufacturer production model available to the general public in the United States, produced in amounts of a minimum of 5,000. Manufacturer body styles, engines and chassis must all be from same manufacturer. PRO 4X4 is considered an open production division regulated only by Division, CCR and Safety Rules. Division rules supersede CCR.

1. CHASSIS

- A.** Maximum wheelbase 122 inches. Minimum wheelbase is 113 inches.
- B.** Maximum overall width 93 inches, outside of tire to outside of tire, as measured from ride height of 10 inches. Width is measured as vehicle passes over ride height blocks.
- C.** Truck wheelbase and tracking width will be measured with all tires inflated to 20 PSI in outer tire.

2. SUSPENSION

- A.** Spindles may be reinforced or manufactured and must retain the same basic design and concept as originally mounted as produced.
- B.** No limits or restrictions on ball joints, spring rate capacities or pivot point bushings.
- C.** Front wheel maximum wheel travel limits 18 inches.
- D.** Rear wheel maximum wheel travel limits 20 inches.
- E.** All four corners must be coil over suspension.

3. RIDE HEIGHT OF TRUCK

- A.** 10 inches measured as vehicle drives over 10 inch ride height blocks.
- B.** Truck may be measured for ride height before and after competition.
- C.** Trucks will be measured will all tires inflated to 20 PSI pressure in outer tire.

4. TRUCK WEIGHT

- A.** Vehicle weight is set according to the following formula:
2 valves per cylinder and using a carburetor must weigh 10lbs./cubic inch.
2 valves per cylinder and using TORC Series approved fuel injection must weigh 10.5lbs./cu. in.
3 or more valves per cylinder and using a carburetor must weigh 11.5lbs./cubic inch.
3 or more valves per cylinder and using TORC Series approved fuel injection must weigh 11.75lbs./ cubic inch.
- B.** For those trucks using electronic fuel injection, please refer to CCR.
- C.** Trucks may be weighed pre and post race, and must weigh a minimum of 4,000 lbs. with driver at race end.
- D.** Weight is subject to change in interest of competition.
- E.** Minimum front axle weight is 48% of total truck weight at race end.
- F.** All trucks must meet minimum weight and front percentage both pre and post race.

5. TRUCK BODY

- A.** All fender and box side mounts must be a looped design only. Box sides must be full length including the taillight wrap around.
- B.** Maximum body width 80 inches as measured between pillar A and pillar B.
- C.** Fenders may be flared to outside of the tire.

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6. ENGINE

- A.** OEM design, steel or aluminum.
- B.** Block must be available to the general public at a price competitive with other manufacturers. and had been made in quantities of at least 1,000.
- C.** Maximum of 8 cylinders.

7. CARBURETOR

- A.** One four-barrel carburetor is permitted.

8. FUEL INJECTION

- A.** For those trucks using electronic fuel injection, please refer to CCR.

9. DRIVE PARTS

- A.** Engine to transmission adapter plate can be a maximum of 1/2 inch thick.
- B.** Auxiliary under drive and overdrive units are permitted.
- C.** Engine crankshaft must be connected to the transmission input shaft via a conventional clutch assembly or vane type torque converter.
- D.** Drive train must be in stock order, engine, transmission, transfer case, differential via a drive shaft,

engine must be in front of truck.

E. Rear differential must be spool type only, an approved by TORC Series Technical Director.

F. Rear differential must have a minimum of 1 ½ inch inspection bung or plate placed in such a manner that TORC Series Tech can see and identify spool. If inspection area does not exist, crew chief will remove differential for TORC Series Tech inspection.

G. Independent rear suspension not allowed.

10. TRANSMISSION

A. Automatic transmissions must operate through a conventional torque converter.

B. Manual shifting of all transmissions is mandatory, unless other method need be employed for handicap condition of driver. TORC Series technical director must approve all non-manual shifting procedures.

C. Auxiliary under drive or over drive units may be shifted electronically, but only by manually operated switch.

11. TIRES

Refer to COMBINED CLASS RULES (CCR), paragraph 33.

12. WHEELS

A. Maximum wheel size is 10.0"x 15.0", 10.0"x 16.0" or 9.0"x17.0"

B. Minimum backspacing for all wheels will be 3.75".

C. All wheels must be in excellent condition free from cracks and defects that could cause wheel failure.

D. All bead lock rings must have recessed bolts.

13. RADIOS

All pro trucks must be equipped with a two-way radio and a spotter.

Frequency must be registered with TORC Series.

Refer to COMBINED CLASS RULES (CCR), paragraph 37.

ALL CCR APPLY AS SET FORTH IN THIS TORC SERIES RULEBOOK

PRO 2WD TRUCK

DEFINED AS- Vehicles custom built or manufactured as a full size two wheel drive type utility vehicle. Vehicle must be a standard manufacturer production model available to the general public in the United States and produced in amounts of a minimum of 5000. Manufacturer body styles and engines must all be from same manufacturer. The PRO 2 WD class is considered an open production class regulated only by Class, CCR, and Safety Rules. Division rules supersede CCR. **Trucks built prior to 2001 can compete as Non-Standardized according to the TORC 2009 Rule Book.**

1. CHASSIS

A. The standardized PRO 2WD chassis must be constructed in accordance to TORC Series standardized prints.

B. Frame must be constructed of 2"x 3" rectangular tubing only, with a minimum wall thickness of 1/8". Frame profile must remain unchanged. The 2" x 3" rails must remain intact from front to rear. Some teams have notched the frame to accommodate the steering rack per Western 2008 rules. This will be allowed in 2009 but will not be allowed in 2010.

C. Maximum wheelbase 120 inches. Minimum wheel base 113 inches, as measured with TORC Series certified gauge.

D. Maximum overall width 93 inches as measured outside of tire to outside of tire at a ride height of 10 inches.

E. Truck wheelbase and overall width will be measured with all tires inflated to 20 PSI in outer tire. Truck will be measured as they pass over a 10 inch ride height block.

F. All trucks must be left side steer only. Steering wheel, seat and pedals must be in approximate stock location.

F. Standardized chassis rules were updated in 2005. To receive a copy of this new print please call the TORC Series HQ.

2. SUSPENSION

A. Spindles may be reinforced or manufactured and must retain the same basic design and concept as originally mounted and produced.

- B. No limits or restrictions on ball joints, spring rate capacities, pivot point bushings.
- C. All four corners must be coil over suspension.
- D. Front wheel travel limits 18 inch maximum. Rear wheel travel limits 20 inch maximum.
- E. Four bar rear suspension only. Rear axle may not rotate separately from axle housing mounts.
- F. Independent rear suspension not allowed.

3. SHOCK ABSORBERS AND SPRINGS

- A. Maximum of two shocks per corner.
- B. One spring stack per corner, maximum of three springs on one shock.
- C. External bypass allowed on one shock per corner.
- D. Determination of air shock usage will be done in the following manner: Truck will be presented to TORC Series technical, on level ground, at existing ride height. Truck height will be measured from a given point on the chassis, all canisters will be purged of air, and nitrogen or other charged support. If truck droops more than 1 ½ inches the truck will be illegal.
- E. Bump stops will be allowed on front and rear of the truck. Bump stops will only be legal if they absorb the last 6 inches of upward compression.
- F. TORC Series technical director must approve all shocks.

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4. RIDE HEIGHT

- A. 10 inches measured as vehicle drives over 10 inch ride height blocks.
- B. Truck must race at 10 inch ride height.
- C. Trucks will be measured with all tires inflated to 20 PSI in outer tire.
- D. Trucks may be measured for proper ride height before and after competition.

5. TRUCK WEIGHT

- A. Vehicle weight is set according to the following formula:
Two valves per cylinder and using a carburetor must weigh 9.75lbs./cubic inch.
Three or more valves per cylinder and using a carburetor must weigh 10.75 lbs. /cubic inch.
Three or more valves per cylinder and using TORC Series approved fuel injection must weigh 11.25 lbs./cubic inch.
- B. For those trucks using electronic fuel injection, please refer to the CCR.
- C. Trucks may be weighed pre and/or post race, and must weigh a minimum of 3,750 lbs.
- D. Weight is subject to change in interest of competition.
- E. Minimum front axle weight is 45% of total truck weight at race end.
- F. All trucks must meet minimum weight and front percentage both pre and post race.

6. TRUCK BODY

- A. All fender and box side mounts must be a looped design only. Box sides must be full length including the taillight wrap around.
- B. Maximum body width 80 inches as measured form pillar A to pillar B.
- C. Roofline, rocker panels and top of bedside must be parallel to the horizontal frame members.
- D. Vehicle appearance must remain as factory produced. TORC Series Technical Director must approve changes in appearance.
- E. Tires must retract inside of fenders.

7. ENGINE BLOCK

- A. OEM design, steel or aluminum.
- B. Block must be available to the general public at a price competitive with other manufacturers. and had been made in quantities of at least 1,000.
- C. Maximum of 8 cylinders.
- D. Centerline of crankshaft cannot be less than 8 1/2 inches above the lowest part of the frame rail as measured from the front of the engine.
- E. Maximum engine setback of 42 inches from the front spindle centerline to rear of bell housing mount flange on rear of block.

8. CARBURETOR

One four-barrel carburetor permitted.

9. FUEL INJECTION

Allowed:

- A. Fuel injection on overhead cam motors under 340 cubic inches.

Not Allowed:

- A. Fuel injection is not allowed on pushrod motors.

10. DRIVE TRAIN PARTS

- A. Engine to transmission adapter plate can be a maximum of 1/2 inch thick.
- B. Auxiliary under drive and overdrive units are permitted.
- C. Engine crankshaft must be connected to the transmission input shaft via a conventional clutch assembly or vane type torque converter.
- D. Maximum of three disk clutches may be used
- E. Must be in stock order, engine, transmission, and differential via a drive shaft.
- F. Rear differential must be spool type only, and approved by TORC Series technical director.

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G. Rear differential must have a minimum of one inspection hole 1 1/2 inch diameter located in such a manner that TORC Series tech can see and identify spool. If inspection hole does not exist, crew chief will remove differential for TORC Series technical inspection.

11. TRANSMISSION

- A. Automatic transmissions must operate through a conventional torque converter.
- B. Manual shifting of all transmissions is mandatory, unless other method need be employed for handicap condition of driver. TORC Series technical director must approve all non-manual shifting procedures.
- C. Auxiliary under drive or over drive units may be shifted electronically, but only by manually operated switch.

12. TIRES

Refer to COMBINED CLASS RULES (CCR), paragraph 33.

13. WHEELS

- A. Maximum wheel size is 10.0"x 15.0", 10.0"x 16.0" or 9.0"x 17.0".
- B. Minimum backspacing for all wheels will be 3.75".
- C. All wheels must be in excellent condition free from cracks or defects that could cause wheel failure.
- D. All bead lock rings must have recessed bolts only.

14. RADIOS

Frequency must be registered with TORC Series.

All PRO trucks must be equipped with a two-way radio and a spotter.

Refer to COMBINED CLASS RULES (CCR), paragraph 37.

ALL CCR APPLY AS SET FORTH IN THIS TORC SERIES RULEBOOK

PRO LIGHT 2WD TRUCK V8

DEFINED AS- Vehicles custom built or manufactured as a light duty two-wheel drive utility vehicle. Vehicle must be a standard manufacturer production model available to the general public in the United States and produced in amounts of a minimum of 5000. Manufacturer body styles and engines must all be from same manufacturer. The PRO Light 2 WD class is considered an open production class regulated only by Class, CCR, and Safety Rules. Division rules supersede CCR.

NOTE: In the interest of fairness and/or to improve competition and this being a highly competitive class please be advised that adjustments to the rules, motor, engine block, head, weight, plenums, and choke size may be announced within the racing season. Class competitors will be duly advised by TORC Series.

For the 2010 season TORC/USAC is developing an alternate engine concept to reduce costs.

Rules and regulations for this package are as follows:

1. CHASSIS

- A. The standardized PRO Light 2WD chassis must be constructed in accordance to approved TORC Series standardized chassis prints.
- B. Frame must be constructed of 3"x 2" rectangular tubing only with a minimum wall thickness of 1/8".
- C. Wheelbase 106 inches as measured with TORC Series certified gauge.
- D. Maximum overall width 74 inches as measured outside of tire to outside of tire at a ride height of 10 inches.
- E. Truck wheelbase and overall width will be measured with all tires inflated to 20 PSI Truck will be measured as they pass over a 10 inch ride height block.
- F. All trucks must be left side steer only. Steering wheel, seat and pedals must be in approximate stock location.
- G. All chassis information such as ride height and tracking width are included in the TORC Series

standardized chassis prints.

H. The transmission and engine must fit within the frame rails without cutting or any modifications to the transmission pan or engine oil pan.

I. The motor set back will be a maximum of 42" ± 2" measured from the spindle centerline to the back of the block at the bell housing mounting surface.

2. SUSPENSION

A. All four corners must be a coil over suspension.

B. Sway bars are allowed.

C. Front suspension "A" arm must be constructed symmetrical about the centerline.

D. Front wheel travel limit: 12 inches. Rear wheel travel limit: 14 inches.

E. Four bar suspension only. Rear axle may not rotate separately of the axle housing mounts

3. SHOCKS AND BUMP STOPS

A. Maximum of two shocks per corner.

B. One spring stack per corner, maximum of two springs on one shock.

C. External by pass allowed on one shock per corner.

D. Determination of air shock usage will be done in the following manner: Truck will be presented to TORC Series Technical, on level ground, at existing ride height. Truck height will be measured from a given point on the chassis, all canisters will be purged of air, and nitrogen or other charged support. If truck droops more than 1 ½ inches, the truck will be illegal.

E. Bump stops may only be attached to the chassis of the truck. They cannot be attached to any moving suspension parts.

F. Bump stops will be allowed on front and rear of the truck. Bump stops will only be legal if they absorb the last 3 inches of upward compression.

4. RIDE HEIGHT OF TRUCK

A. 10 inches measured as vehicle drives over 10 inch ride height blocks.

B. Truck may be measured before and after competition.

C. Trucks will be measured with all tires inflated to 20 PSI pressure in outer tire.

5. WEIGHT OF TRUCK

A. All trucks must weigh a minimum of 2,900 pounds including driver.

B. Minimum front axle weight is 45% of total truck weight.

C. All trucks must meet minimum weight and front percentage both pre and post race.

6. BODY

A. All fender and box side mounts must be a looped design only. Box sides must be full length including the taillight wrap around.

B. Roofline, Rocker panels and top of bed side must parallel to the horizontal frame members.

C. Tires must retract into fender wells.

D. Hood must be locked down with five positive pin fasteners equipped with clip cables. Three must be evenly spaced across the front of the hood and two placed in the rear corners of the hood.

7. ENGINE BLOCK

A. The engines approved for this class are:

General Motors 88958604 GM Performance Parts

Ford Racing D347SR Ford Racing

Mopar ASA75360 Stanton Racing

Only TORC or factory authorized agents will be allowed to sell new engines or perform any internal maintenance or repairs and re-certify with factory seals.

The TORC authorized agents for these engines are:

General Motors Earnhardt/Childress 336-853-4943

Ford Racing Roush/Yates 704-658-1540

Mopar Stanton Engines 859-885-7354

B. Engine must be of the same type as installed or optioned by the original manufacturer for stated series of race truck.

C. Centerline of crankshaft cannot be less than eight inches above the lowest part of the frame rail, as measured from the front of the engine.

D. Engine must remain in front of truck, no rear engine trucks will be allowed.

E. Mandatory that the engine block and head be positioned between frame rails as viewed from the top.

8. ENGINE OILING SYSTEMS

Engines may be wet or dry sump. Dry sump systems must use a 4 stage (3 scavenge, 1 pressure) gear pump and a steel pan with a maximum width of ten inches. Recommended oil tank capacity is 3 gallon minimum.

Any wet sump pan is allowed.

9. CARBURETOR

A. A single 650 Holley 80541-1 650 CFM carburetor is mandated.

B. Typical adjustments to maintain performance levels, or tailor the metering system, are permitted.

C. Adjustments which are not perceived as modifications are: idle speed, idle mixture, power valve, jets, air bleeds and float level.

D. No other modifications are allowed.

E. A single 1.0" spacer is allowed. Spacer must have 4 holes and tapering is permitted.

10. HEADERS

A. Headers must be mild steel with 1¾" primaries, 4 into 1 formed canister collector (not merged) and 3" secondaries with a muffler. No side to side connecting pipes of any size are allowed. Maximum decibels are 95 at 100ft.

11. MUFFLERS

A. Magnaflow #14159 Race Mufflers are required and will be provided by Magnaflow Exhaust Products.

12. IGNITION SYSTEMS

A. A MSD ignition with module 6AL #6420 (or ALN) will be required with a 6000 RPM limit.

13. ENGINE COOLING SYSTEM

A. One radiator of any size may be used.

B. Radiator must be placed in the rear.

14. DRIVE TRAIN PARTS

A. Engine crankshaft must be connected to the transmission input shaft via a conventional clutch assembly or vane type torque converter.

B. Must be in stock order, engine, transmission, and differential via a drive shaft.

C. Rear differential must be spool type only, and approved by TORC Series technical director.

D. Rear differential must have a minimum of one inspection hole 1 ½ inch diameter located in such a manner that TORC Series tech can see and identify spool. If inspection hole does not exist, crew chief will remove differential for TORC Series technical inspection.

15. TRANSMISSION

A. A GM turbo 400 transmission with standard gearing will be the only transmission allowed. Aftermarket short extension housing is allowed.

B. Transmission must operate through a conventional torque converter.

C. Manual shifting of transmissions is mandatory, unless other method need be employed for handicap condition of driver. TORC Series Technical Director must approve all non-manual shifting procedures.

D. Remote accessory drives are not allowed.

16. TIRES

D.O.T. tires are mandatory. Refer to COMBINED CLASS RULES (CCR), paragraph 33.

A. Maximum tire size will be 32" X 11.50" as indicated on tire. Metric tires may be used so long as they do not exceed the maximum tire size indicated above.

B. Tires will not be allowed if circumference exceeds 101".

C. Tires will be measured without load of vehicle.

D. Tires will be measured from their widest and highest point, inflated to 35 PSI, mounted on a standard 8 inch wheel **race ready wheel.**

E. No inner liner allowed.

17. WHEELS

A. All wheels must be in excellent condition free from cracks or defects that could cause wheel failure.

B. All bead lock rings must have recessed bolts.

18. RADIOS

Frequency must be registered with TORC Series.

All PRO trucks must be equipped with a two-way radio and a spotter.
Refer to COMBINED CLASS RULES (CCR), paragraph 37.

ALL CCR APPLY AS SET FORTH IN THIS TORC SERIES RULEBOOK.

PRO LIGHT 2WD TRUCK 4 CYLINDER

DEFINED AS- Vehicles custom built or manufactured as a light duty two-wheel drive utility vehicle. Vehicle must be a standard manufacturer production model available to the general public in the United States and produced in amounts of a minimum of 5000. Manufacturer body styles and engines must all be from same manufacturer. The PRO Light 2 WD class is considered an open production class regulated only by Class, CCR, and Safety Rules. Division rules supersede CCR. **Trucks built prior to 2001 can compete as Non-Standardized according to the TORC 2009 Rule Book.**

NOTE: In the interest of fairness and/or to improve competition and this being a highly competitive class please be advised that adjustments to the rules, motor, engine block, head, weight, plenums, and choke size may be announced within the racing season. Class competitors will be duly advised by TORC Series. For the 2010 season TORC/USAC is developing an alternate engine concept to reduce costs. Rules and regulations for this package will be released separately or in bulletin form as they are developed.

1. CHASSIS

- A. The standardized PRO Light 2WD chassis must be constructed in accordance to approved TORC Series standardized chassis prints.
- C. Frame must be constructed of 3"x 2" rectangular tubing only with a minimum wall thickness of 1/8".
- C. Wheelbase 106 inches as measured with TORC Series certified gauge.
- D. Maximum overall width 74 inches as measured outside of tire to outside of tire at a ride height of 10 inches.
- E. Truck wheelbase and overall width will be measured with all tires inflated to 20 PSI Truck will be measured as they pass over a 10 inch ride height block.
- D. All trucks must be left side steer only. Steering wheel, seat and pedals must be in approximate stock location.
- B. All chassis information such as ride height and tracking width are included in the TORC Series standardized chassis prints.

2. SUSPENSION

- A. All four corners must be a coil over suspension.
- B. Sway bars are allowed.
- C. Front suspension "A" arm must be constructed symmetrical about the centerline.
- D. Front wheel travel limit: 12 inches. Rear wheel travel limit: 14 inches.
- E. Four bar suspension only. Rear axle may not rotate separately of the axle housing mounts

3. SHOCKS AND BUMP STOPS

- A. Maximum of two shocks per corner.
- B. One spring stack per corner, maximum of two springs on one shock.
- C. External by pass allowed on one shock per corner.
- D. Determination of air shock usage will be done in the following manner: Truck will be presented to TORC Series Technical, on level ground, at existing ride height. Truck height will be measured from a given point on the chassis, all canisters will be purged of air, and nitrogen or other charged support. If truck droops more than 1 1/2 inches, the truck will be illegal.
- E. Bump stops may only be attached to the chassis of the truck. They cannot be attached to any moving suspension parts.
- F. Bump stops will be allowed on front and rear of the truck. Bump stops will only be legal if they absorb the last 3 inches of upward compression.

4. RIDE HEIGHT OF TRUCK

- A. 10 inches measured as vehicle drives over 10 inch ride height blocks.
- B. Truck may be measured before and after competition.
- C. Trucks will be measured will all tires inflated to 20 PSI pressure in outer tire.

5. WEIGHT OF TRUCK

- A. All trucks using individual runner intake manifolds must weigh a minimum of 2,800 pounds

including driver and equipment.

B. All trucks not using individual runner intake manifolds, including those using plenums or balance pipes, must weigh a minimum weight of 2,875 pounds.

C. All Fords running the short deck block using individual runner manifolds must weigh a minimum of 2,750 pounds. All short deck Fords using a plenum or balance pipes must weigh a minimum of 2,800 pounds.

D. Minimum front axle weight is 45% of total truck weight.

E. All trucks must meet minimum weight and front percentage both pre and post race.

6. BODY

A. All fender and box side mounts must be a looped design only. Box sides must be full length including the taillight wrap around.

B. Roofline, Rocker panels and top of bed side must parallel to the horizontal frame members.

C. Tires must retract into fender wells.

D. Hood must be locked down with five positive pin fasteners equipped with clip cables. Three must be evenly spaced across the front of the hood and two placed in the rear corners of the hood.

7. ENGINE BLOCK

A. Four cylinders only.

B. Maximum displacement:

1. Two valves per cylinder - 2700cc (164.7ci).

2. More than two valves per cylinder - 2500cc (152.5ci).

C. Engine block must be of the same material as delivered by manufacturer and available for sale in the U.S.A.

D. Engine must be of the same type as installed or optioned by the original manufacturer for stated series of race truck.

E. Centerline of crankshaft cannot be less than eight inches above the lowest part of the frame rail, as measured from the front of the engine.

F. Engine must remain in front of truck, no rear engine trucks will be allowed.

G. Mandatory that the engine block and head be positioned between frame rails as viewed from the top.

H. Magnetic steel crankshaft only.

I. Blocks may not be modified by addition of material.

J. TORC Series Technical Director must approve all manufacturer engine blocks.

8. ENGINE OILING SYSTEMS

Dry oil sumps are allowed.

9. ENGINE HEADS

A. TORC Series Technical Director must approve all engine heads. Tech must have each approved head in inventory before said head can be used in competition.

B. Aluminum heads are permitted.

C. Valve location cannot be changed. Valve angle cannot be changed from stock location.

D. No welding or material added except for repairs without TORC Series technical approval

E. Spark plug location cannot be changed.

F. Modification to combustion chamber allowed.

G. Cam location and mounting cannot be changed.

10. CARBURETOR

A. All trucks will run a maximum of two Weber side draft or down draft carburetors.

B. All trucks using individual runner intake manifolds will have a maximum carburetor choke size of 42mm.

C. All trucks using anything other than individual runner intake manifolds, such as plenums or balance pipes, will have a maximum carburetor choke size of 40mm.

D. Choke size may be adjusted in the interest of competition.

E. No modifications to throttle shafts, throttle plates or venturis.

F. No fuel injection, turbo or superchargers.

11. IGNITION SYSTEMS

Only the Electromotive HPVI, HPXI, MSD 6214, 6211, Red Line spec. system or distributor ignition will be allowed.

12. ENGINE COOLING SYSTEM

A. One radiator of any size may be used.

B. Radiator must remain in front of engine.

13. DRIVE TRAIN PARTS

- A. Engine crankshaft must be connected to the transmission input shaft via a conventional clutch assembly or vane type torque converter.
- B. Maximum of three disk clutches may be used
- C. Must be in stock order, engine, transmission, and differential via a drive shaft.
- D. Rear differential must be spool type only, and approved by TORC Series technical director.
- E. Rear differential must have a minimum of one inspection hole 1 ½ inch diameter located in such a manner that TORC Series tech can see and identify spool. If inspection hole does not exist, crew chief will remove differential for TORC Series technical inspection.

14. TRANSMISSION

- A. Maximum five forward speeds manual.
- B. Automatic transmissions limited to four forward speeds and must operate through a conventional torque converter.
- C. Manual shifting of all transmissions is mandatory, unless other method need be employed for handicap condition of driver. TORC Series Technical Director must approve all non-manual shifting procedures.
- D. Manual transmissions must have neutral between each gear. Shifting must pass through neutral each time a gear is advanced or decreased. Sequential shifting is illegal.
- E. Remote accessory drives are not allowed.

15. TIRES

D.O.T. tires are mandatory. Refer to COMBINED CLASS RULES (CCR), paragraph 33.

- A. Maximum tire size will be 32" X 11.50" as indicated on tire. Metric tires may be used so long as they do not exceed the maximum tire size indicated above.
- B. Tires will not be allowed if circumference exceeds 101".
- C. Tires will be measured without load of vehicle.
- D. Tires will be measured from their widest and highest point, inflated to 35 PSI, mounted on a standard 8 inch wheel **race ready wheel**.
- E. No inner liner allowed.

16. WHEELS

- A. All wheels must be in excellent condition free from cracks or defects that could cause wheel failure.
- B. All bead lock rings must have recessed bolts.

17. RADIOS -Frequency must be registered with TORC Series.

All PRO trucks must be equipped with a two-way radio and a spotter.

Refer to COMBINED CLASS RULES (CCR), paragraph 37.

ALL CCR APPLY AS SET FORTH IN THIS TORC SERIES RULEBOOK

FORMULA 4X4 TRUCK

Defined As- A two-wheel drive standard size pickup. The truck must be of stock production that has been produced in quantities of at least 5,000 for a one year period and available for purchase by the general public in the USA. This is a production class and must maintain the engine, body and frame combination for a specified production year. All components must remain stock unless modifications are allowed by this rulebook. Division rules supersede CCR. Race Numbers are 800 to 899.

Vehicle must be 15 years old or newer. All trucks older than 15 years will be "grandfathered" as long as it is raced at least once each season and is kept in good condition. All new built trucks must be no older than 15 years. **All trucks, regardless of year built, must be properly constructed and maintained in presentable condition.** It is the responsibility of the driver to carry a factory shop manual that matches the race vehicle.

1. CHASSIS

Required:

Factory installed chassis and body must be maintained for year specified.

Allowed:

- A. Strengthening of chassis and frame by adding material.
- B. Stock wheel base -plus or minus one inch.
- C. Shortening of long wheelbase frame to match short wheelbase specs allowed. Must have TORC Series Tech approval.

Not Allowed:

Removal of any cross members or any other materials.

2. FRONT AND REAR SUSPENSION**Required:**

- A. Stock suspension parts and locations must be maintained as delivered.
- B. Track width must be in stock. Measurement will be determined from the factory manual.
- C. Pivot points must remain stock and in stock locations.
- D. Travel limit in the front and rear -12 inches measured metal stop to metal stop with out anything in between.

Allowed:

- A. Stock spindles or replacement spindles with 3/4 or 1-ton components only.
- B. Stock lower a-arm. Any manufacture upper A-Arm.
- C. Any manufactured ball joint.
- D. Steel springs of any rating, any manufacture. Stock length only.
- E. Replacing all/any rubber mounts with poly or other material.
- F. Two single point anti-wrap up bars attached on the differential.
- G. Stock sway bars only.
- H. Using of larger stud or bolts.
- I. Rubber/poly bump stops.
- J. Reinforcing of parts with additional material but no modifications to the part.

Not Allowed:

- A. Quarter elliptical springs.
- B. Shackles lengthen or moved from stock locations.
- C. Composite and/or fiberglass springs.
- D. Air bump shocks/stops.

3. STEERING**Allowed:**

- A. Only stock steering box as original from the particular chassis. **Any OEM steering box may be used providing it is mounted in approximately the same location as stock and the pitman arm location does not change significantly.** Internal modifications are allowed.
- B. Tie rods, tie rod ends, and any ball and socket type. All other steering must remain stock but can be reinforced.
- C. Any steering wheel but must remain within three inches of the stock location fore and aft.
- D. Stock steering pump internal modifications.
- E. Steering pump and reservoir of any manufacturer but must be belt driven.
- F. Steering Quickners.
- G. Chassis that originally have rack and pinion steering may use an aftermarket rack mounted in the approximate stock location. Must have TORC Series Tech approval.

Not Allowed:

Changing of the original concept or location.

4. SHOCKS**Allowed:**

- A. Any number of two inch shocks can be used.
- B. Floating pistons and remote reservoirs.
- C. Shocks larger than 2 inch may be used but limited to a total of one shock per wheel. If a shock larger than 2 inch is used no other shock is allowed on that corner.

Not Allowed:

- A. Custom made shocks. All shocks must be available from normal retail sources.
- B. Shocks larger than 3 inch.
- C. External **or** internal bypass shocks.
- D. Shocks may not protrude through the hood or fenders.
- E. Remote or cantilever shocks.
- F. Air shocks.

5. WEIGHT

Minimum 4,150 lbs. at race end with driver.

6. BRAKES

Stock brake equipment only. No anti-lock systems, electrical or mechanical.

Allowed:

- A. Any brake pads or brake shoe material.
- B. Any master cylinder or wheel cylinders as long as it bolts in place of the stock one.
- C. Any proportioning valve.
- D. Braided lines.
- E. Rear disc brakes, steel rotors and calipers only.

Not Allowed:

Steering brakes.

7. BODY

Updating and pre-dating will be allowed where stock fitment is allowed but limited to body components that can be bolted on to change the model year's appearance i.e. 95 front clip on an 84 Chevrolet cab.

Stock body lines must be maintained and changes completed in a professional manor. It is the owner and drivers responsibility to have a specifications and option list for vehicle!

Required:

- A. Stock mounts in original positions.
- B. Original size, shape, configuration and appearance.
- C. Stock grill assembly and/or after-market exact duplicate for the body/chassis year.
- D. Doors, hoods and fenders must be in the factory original stock location.
- E. Heater core hoses must be disconnected.

Allowed:

- A. Stock mounts may be replaced with any material.
- B. Outer box sides may be bolted to the inner bed panels.
- C. Removal of the heater, air conditioning system, windshield wiper motor and linkage along with any excess wiring.
- D. Removal of the tailgate.
- E. General body bracing by additional material.

F. OEM cab floor and firewall must match frame and be mounted in stock location. The remainder of the OEM cab is not required.

Not Allowed:

- A. Windshields or any other stock glass.
- B. Shocks, radiators, transmission coolers, air filters and scopes protruding through the hood.

8. INTERIOR

Required:

Removal of all upholstery, upholstery panels, headliners, carpets, plastic interior parts.

Allowed:

- A. Dash optional.
- B. The pedal assemblies must remain in the approximate stock location.

Not Allowed:

Modifications of the interior panels except for installation of the interior cage construction.

9. SEATS

Any manufacturer allowed. Must stay in approximate factory stock locations.

10. FLOOR BOARDS

Required:

A. OEM cab floor must match frame and be mounted in stock location.

Allowed:

- A. Repair of rust with equal thickness metal.
- B. A minimum amount of trimming will be allowed**

Not Allowed:

- A. Any modifications or alterations.
- B. Excessive trimming or material removal not allowed on any body component.

11. FIREWALL

Required:

OEM firewall must match frame and be mounted in stock location.

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Allowed:

- A. Repair of rust with equal thickness metal.
- B. The only modifications allowed will be for the proper installation of the cage construction.

C. A minimum amount of trimming will be allowed

Not Allowed:

Any alterations.

12. HOOD

- A. Hoods and fenders must be in the factory original stock location.
- B. Any material outer panel allowed but must be exact duplicate of OEM panel.
- C. Complete removal of the hood latches.
- D. Hood pins are mandatory.

13. DOORS

Required:

Three horizontal bars of properly sized tubing, tied to the cage on each side.

Allowed:

- A. Stock location ---non-operating, securely mounted!
- B. Removal of the window, window regulator hardware parts/pieces.
- C. OEM or exact duplicate outer panel of any material allowed.
- D. If anything other than steel panels are used the plating of the left door bars will be required. .075 aluminum or [16] gauge steel must be used.

14. FENDERS

Allowed:

- A. Enlargement of wheel openings for tire clearance with 3 inch cut out and 2 inch flare.
- B. Use of hoop for mounting fenders and radiator.
- C. Outer box sides may be of any material but must be the exact duplicate of the OEM panels.
- D. Inner box is optional.
- E. Front fenders may be of any material but must be the exact duplicate of the OEM panel.
- F. Inner front fender reinforcement may be removed.

15. HEADLIGHTS

Required:

- A. Head light openings must be covered with flat material.
- B. No glass allowed.

16. RADIATOR, COOLING SYSTEM

Allowed:

- A. Only one radiator.
- B. Can be mounted in any location.
- C. OEM or direct replacement water pump only.
- D. Auxiliary water tanks used for cooling of no more than 5 gallons.

17. FUEL CELLS

MANDATORY - CCR RULES APPLY - Paragraph 28

Cutting of the box floor to place the fuel cell is allowed. Removal of cross member is allowed.

18. ENGINE

"Stock" means the part or assembly in its "as cast" configuration as delivered and used on U.S. model without modifications. All casting and/or part numbers must be visible.

Allowed:

- A. Engine must be in stock location on stock mounts for a V-8.
- B. One engine movement limiter-cable, chain etc.
- C. Strengthening of the motor mount brackets by additional material only.
- D. Motors other than those listed may be used once approved by TORC Series Tech.

Not Allowed:

- A. Any modification not specifically listed.
- B. Mounting plates.

19. BLOCK AND CRANKSHAFT

Approved standard OEM, as cast iron production block. Blocks approved by TORC Series are: GM 350, Mopar.360 Ford 351 Windsor.

- A. Stock cast or forged steel crankshaft or OEM aftermarket replacement only.
- B. Rod journal grind is open but all the following engine rules must be adhered to.

Required:

- A. 3/4 inch inspection hole in the side of the oil pan, in line with crankshaft journal and crankshaft casting number.
- B. Stock block deck height within .020 of specification.
- C. Maximum 370 cubic inch displacement.
- D. Engines must be able to be sealed once they are pumped. One head bolt, one intake manifold bolt,

one oil pan bolt on each side of the oil pan must be drilled to allow sealing.

Allowed:

- A. Blue printing and balancing.
- B. Using studs rather than bolts.
- C. Oil pan windage trays.
- D. High volume or pressure oil pump.
- E. Auxiliary engine oil cooler.
- F. Fan for oil cooler.
- G. Remote oil filters.
- H. Harmonic balancer open, any manufacturer. **Must be SFI 18.1 approved**

Not Allowed:

- A. Any kind of modification specification not listed above.
- B. Crankshafts that have been knife edged or lightened.
- C. Dry sumps **or external wet sump pumps** are not allowed.

20. CYLINDER HEADS AND VALVES

- A. Standard production, as cast, iron heads that matches the block with the casting numbers clearly visible.
- B. GM may use any OEM production head with a maximum intake valve diameter of 1.94, maximum exhaust valve diameter of 1.60. No angle plug or bowtie heads allowed.
- C. Chrysler may use any OEM production head including the magnum head part # P5007086. W-2 heads not allowed. Maximum intake valve diameter of 1.88, maximum exhaust valve diameter of 1.60.
- D. Ford may use any OEM production head, GT40, GT40P or World Products Roush 180 part No. 5303, Maximum intake valve diameter of 1.94, and maximum exhaust valve diameter of 1.60.

Allowed:

- A. After market valve springs provided the stock outside dimension is retained.
- B. Three angle valve jobs.
- C. Single 45 degree cut on the valve face.
- D. Valve guide material unlimited.
- E. Stainless steel valves.
- F. Screw in studs and guide plates.
- G. One breather per valve cover.
- H. Machining of head to accommodate valve size listed above.

Not Allowed:

- A. Any modifications of the cylinder head not specifically listed above.
- B. Angle milling/cutting of the block or cylinder heads.
- C. Bowl cutting.
- D. Titanium or composite valves.

21. PISTONS AND CONNECTING RODS

Allowed:

- A. Flat top or dished, stock or OEM replacement piston only. Cast or forged pistons.
- B. Steel rods with stock dimensions only: gm-5.791, Mopar-6.123, And Ford-5954.
- C. Removal of casting flash from connecting rod, shot peen of connecting rod.

Not Allowed:

- A. Any modifications not specifically listed above.
- B. Titanium, stainless, aluminum, H beam etc rods.
- C. No domed or notched pistons.
- D. Piston must remain at or below deck height at TDC.

22. CAM AND LIFTERS

Stock type cast flat tappet camshafts with a maximum valve lift as measured at the valve of .500. Stock lifter bore size.

Allowed:

- A. Other cam grind specifications are unrestricted.
- B. Full roller rockers, stud mount only.
- C. After market direct replacement timing chain and gears.

Not Allowed:

- A. Any modifications not specifically listed above.
- B. Roller mushroom type lifters.
- C. Gear or belt drive.

D. Shaft type rocker unless OEM.

23. INTAKE MANIFOLD

Allowed:

A. As cast-Edelbrock intake: part number, GM 5001 or 2716, Mopar 5076, Ford 5081.

B. Match porting by the removal of material only, within the last ½ inch of the runner only.

C. Addition of return water port in rear of intake manifold allowed, but must be approved by TORC Series Tech.

D. Machining of intake to match Vortec head.

E. Standard design gaskets only.

F. Drilling of head to install intake allowed, must be approved by TORC Series Tech.

Not Allowed:

A. Any other modification not specifically listed above.

B. No devices between the carburetor and the intake manifold, designed to increase or redirect airflow will be allowed.

24. CARBURETOR

Required:

A. One two-barrel model number 0-4412 and one combination restrictor plate/spacer assembly with two 1.375 bores. Must be used with standard size gaskets only. This unit is available though TORC Series tech only!

B. Fuel pump- mechanical only in the stock location

Allowed:

Removal of choke plate.

Not Allowed:

A. Any modification in/to the throttle bore.

B. Any modification to the TORC Series restrictor plate.

25. EXHAUST

Allowed:

Stock, as cast, exhaust manifolds or down and under headers with a maximum tube size of 1.750 inches.

Not Allowed:

A. Headers without collectors.

B. Custom built headers.

C. Exhaust system running through the driver's compartment.

26. IGNITION SYSTEMS

Allowed:

A. Stock type single point or HEI ignition system.

B. Spark must be activated through the distributor.

C. Any control box.

D. Any coil.

E. OEM or direct replacement alternator only.

Not Allowed:

Magnetos, direct fire coil ignition systems.

27. BREATHERS AND AIR FILTERS

Allowed:

A. Air filters and breathers of any material or size.

B. Must fit under stock hood without modification to the hood.

28. TRANSMISSION/DRIVESHAFTS

Required:

Three speed automatic transmission only. Transmission must be from same engine manufacturer.

Allowed:

A. Any internal modification.

B. Any gears.

C. Any conventional vane type converter non- electrical.

D. Transmission cooler may **must** be mounted in a safe location.

E. A 360 degree solid steel bracket, no less than 2 inches wide and ¼ inch thick, must be placed around each drive shaft. SEE CCR Paragraph 31.

29. DIFFERENTIAL

Allowed:

A. Any automotive or light truck production housing and third member for rear axle assembly.

- B. Any gear ratio.
- C. Any axles including aftermarket floater axles.
- D. Rear differential must be spool type only.

Not Allowed:

- A. Knock off hubs.
- B. Quick-change rear ends.
- C. Aluminum housings.

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30. TIRES AND WHEELS

Allowed:

- A. D.O.T. only, available to the general public. See CCR 33.
- B. Maximum tire size of 33 x 12.50 or approximate metric equivalent. Tire must be 33 inches or less at the end of race with 30 pounds of air pressure.
- C. Wheel maximum width is 8 ½ inches.
- D. Any steel wheel or one piece cast aluminum wheel.
- E. Maximum wheel size is 16 inches.
- F. Bead lock wheels.

Not Allowed:

- A. Bead liners and inner liners.
- B. Spun aluminum or magnesium.
- C. Three piece wheels.

31. RADIOS

Frequency must be registered with TORC Series.

All trucks must be equipped with a two-way radio and a spotter

Refer to COMBINED CLASS RULES (CCR), paragraph 37.

ALL CCR APPLY AS SET FORTH IN THIS TORC SERIES RULEBOOK

ENDURO TRUCKS

DEFINED AS -A two wheel drive pickup truck with a 3 /4 ton or smaller chassis manufactured in quantities of at least 5,000 units of same model per year and available for sale in the United States. This is a stock class as defined by original equipment parts (OEM) and replacement parts made to OEM specifications only. Stock also includes options sold on the truck from the same make and model of the truck. All trucks must have an original cargo type bed. Race Numbers are 500 to 599

Allowed: 4x4 pickups with the front drive shaft, transfer case and front differential removed.

This rule will be re-addressed after the 2010 season.

1. CHASSIS

- A. Chassis must remain stock but may be reinforced by adding material.
- B. Shortening of a long wheelbase frame to match short wheelbase specs is allowed.
- C. The wheelbase must be stock measurement (+) or (-) 2".

2. FRONT & REAR SUSPENSION

Required

- A. Stock suspension parts and locations must be maintained as delivered.
- B. Track width must be in stock.
- C. Pivot points must remain stock and in stock locations.
- D. Front and rear wheel travel limit is 12 inches measured to metal stop. Front wheel travel will be measured at the spindle.

Allowed:

- A. Any manufacturer ball joint.
- B. Rubber / poly bump stops but must be removed to measure wheel travel.
- C. Any non take-apart shock, or:
Fox Shox.....7700 Series
Fox Shox.....2.0 series emulsion
Bilstein.....B46 – 1300 Series
Rancho.....RS5000 and RS9000 Series
Doetsch Tech.....MY Series, M2, M2R
Trail Master.....N7, SS, SSY Series
Any other take-apart shock that has written approval from the TORC Series tech director.
- D. Maximum of two shocks per corner.

Not Allowed:

- A. Quarter elliptical springs.
- B. Shackles lengthened or moved from stock locations.
- C. Composite or fiberglass springs.
- D. Air bump shocks / stops.
- E. Any shock or part of suspension protruding through the hood or fenders.
- F. Remote reservoirs.
- G. Take apart shocks except those described above.
- H. Custom made shocks.
- I. Shocks in the driver compartment.
- J. Coil over shocks.
- K. Remote and / or cantilever shocks.
- L. Any kind of air shock.
- M. Position sensitive shocks.
- N. Shafts larger than 5/8".

3. STEERING

- A. Steering must be in stock location and components in safe working order.
- B. Steering quickners are allowed

4. BRAKES

- A. Disc brakes are allowed front and rear but must use steel rotors and calipers.
- B. Proportioning valves are allowed.

5. WEIGHT

- A. Trucks originally manufactured as less than 1/ 2 ton chassis style by manufacturers and using a V6 engine; (mini and mid-size trucks) must weigh a minimum of 3,500 pounds.
- B. All full or mini/mid-sized trucks using a V8 engine must weigh a minimum of 4,000 pounds.

6. BODY & FENDERS

- A. Body and fenders must remain stock, absolutely no bending or flaring, especially to fenders or wheel openings.
- B. Rear wheel wells, firewalls and floorboards must be repaired for rust as well as all other damage.
- C. The truck box must be complete with no cutting of any bed material or fender wells except to allow room for the safe operation of shocks.
- D. Front fender wells may be removed.

7. BUMBERS

Refer to the CCR paragraph 13. BUMBERS.

8. FUEL CELLS

MANDATORY - CCR RULES APPLY

9 ENGINE

Stock cast iron components and parts only

- A. Engine blocks accepted are GM 350, Mopar 360, & Ford 351 Windsor or smaller.
- B. The engine must be in stock position and have stock components such as fan and alternator. The block may be drilled for oil or temperature sending units.
- C. Factory street production head with factory cast marking only
- D. Any oil pan is allowed.

Not Allowed:

- A. Engine oil coolers
- B. Aluminum blocks and/or cylinder heads even if they were available as an option.

- C. External or internal modifications and/or grinding to heads.
- D. GT40, "Bowtie", turbo or angle plug heads even if they were offered as an option.
- E. Interchanging heads from other similar motors, 305 to 350 or 289 to 351, etc.

10. CAMSHAFT AND LIFTERS

Allowed:

- A. Stock type cast flat tappet camshafts with a maximum valve lift as measured at the valve of .500.
- B. Stock lifter bore size.
- C. Full roller rockers, stud mounted only.
- D. After market direct replacement timing chain and gears.

Not Allowed:

- A. Any modifications not specifically listed above.
- B. Roller mushroom type lifters.
- C. Gear or belt drive.
- D. Shaft type rocker, unless OEM.

11. CARBURETOR, IGNITION, COOLING AND TRANSMISSION

- A. Holly two barrel #0-4412 only. No modifications to the throttle plates or bore.
- B. No fuel injection even if vehicle had factory fuel injection.
- C. If an adapter is used the maximum height of the adapter is 1"
- D. Any cast iron OEM intake manifold allowed or Edelbrock part numbers, GM 5001, Mopar 5076, Ford 5081.
- E. Match porting within the last 1/2 inch of the runner is allowed.
- F. Stock exhaust manifolds only.
- G. Mechanical OEM fuel pumps in stock location **only**.
- H. Electric fuel pumps are not allowed.

12. EXHAUST

- A. All Enduros must use two 1 1/2" O.D. x 24" "restrictor pipe" exhaust pipes (or 1 3/4" O.D. x 24" if single pipe is used) measured from weld to weld or weld to end.
- B. Exhaust must run under the body and the restrictor pipe must be welded and clamped securely in place. **Loss of restrictor pipe during competition could warrant a penalty.**
- C. The exact location of restrictor pipe is up to the vehicle owner, but all joints from the restrictor pipe to the manifold must be welded and clamped and will be scrutinized during the safety inspection.
- D. **Aftermarket headers are not allowed.**

13. IGNITION

The ignition must be OEM stock or equal in power output. Aftermarket plug wires allowed.

14. COOLING SYSTEM

- A. Any radiator allowed but must be mounted in stock location.
- B. Core support may be removed and engine compartment can be caged in.

15. TRANSMISSION and DRIVE LINE

- A. The transmission must be from the same engine manufacturer. Internal modifications are allowed.
- B. Any conventional vane type non-electric torque converter is allowed.
- C. Transmission coolers are allowed and may be mounted in the box as long as top of the cooler is below the top of the box sides.
- D. The rear drive and axles must remain stock.
- E. Any OEM rear end is allowed; need not be from the same manufacturer.
- F. **Anti wrap up bars are not allowed.**
- G. Spools are allowed. A rear axle truss may be added to the rear axle housing.

16. TIRES & WHEELS

Allowed:

- A. Maximum tire size of 33 x 12.5 or approximate metric equivalent.
- B. D.O.T. only and available to the general public.
- C. Wheel maximum width is 8 1/2 inches.
- D. Any steel wheel or one piece cast aluminum wheel.
- E. Maximum wheel size is 16 inches.

Not Allowed:

- A. Bead locks, bead liners and inner liners.
- B. Spun aluminum or magnesium.

C. Three piece wheels.

17. RADIOS

Frequency must be registered with TORC Series.

Refer to COMBINED CLASS RULES (CCR), paragraph 37.

ALL CCR APPLY AS SET FORTH IN THIS TORC SERIES RULEBOOK

UNLIMITED BUGGY

DEFINED AS- A 4 wheeled vehicle utilizing many different engine combinations with unlimited suspension chassis designs. Engines are limited to maximum displacement of 4 cylinder Race Numbers are 1-99 Series. Class rules supersede CCR.

1. WEIGHT/WHEELBASE

A. Minimum weight with driver is 1,580 pounds at race end. Cleaning of vehicle may be required.

B. Wheelbase minimum 95 inches

2. ROOF

Required:

A. .075 Aluminum or 16 gauge (.063) steel sheeting.

B. Roof opening must have a heavy-duty hinge with a secure latching system.

C. Positive latching system must be TORC Series approved.

3. ENGINE/TRANSMISSION

Allowed:

A. Any automotive engine with production of 5,000 or more and available to the public in the USA.

B. Maximum 4 cylinders and a maximum of 4 valves per cylinder.

C. Air cooled 1915 cc maximum.

D. 2 valves per cylinder, 1715 cc maximum, water cooled.

E. 3 or more valves per cylinder, 1650 cc maximum, water cooled.

The TORC Series/USAC Technical Director must approve all transmissions.

F. Transmissions must be production, cataloged and available through regular dealer channels.

G. All forward gears and reverse gears must be in working order.

Not Allowed:

Rotary engines.

4. CARBURETOR

Allowed:

A. One carburetor for water-cooled. 2 carburetors for air-cooled.

B. Maximum of two venturis per carburetor.

C. Maximum venturi size:

1. Two valve engines maximum 42 MM.

2. Four valve engines 1600 CC and smaller maximum 29 MM.

3. Four valve engines 1601 CC to 1650 CC maximum 28 MM.

5. WHEELS AND TIRES

D.O.T. tires are mandatory.

Refer to COMBINED CLASS RULES (CCR), paragraph 33.

6. RADIOS

Frequency must be registered with TORC Series.

All PRO Super Buggy teams must be equipped with a two-way radio and a spotter.

Refer to COMBINED CLASS RULES (CCR), paragraph 37.

ALL CCR APPLY AS SET FORTH IN THIS TORC SERIES RULEBOOK.

SUPER BUGGY

DEFINED AS- A 4 wheeled vehicle utilizing many different engine combinations with unlimited suspension chassis designs. Engines are limited to maximum displacement of 1650c.c. to 2000c.c. depending on design and manufacturer. Race Numbers are 1-99 Series. Class rules supersede CCR.

1. WEIGHT/WHEELBASE

- A.** Minimum weight with driver is 1,580 pounds at race end. Cleaning of vehicle may be required.
- B.** Wheelbase minimum 95 inches

2. ROOF

Required:

- A.** .075 Aluminum or 16 gauge (.063) steel sheeting.
- B.** Roof opening must have a heavy-duty hinge with a secure latching system.
- C.** Positive latching system must be TORC Series approved.

3. ENGINE/TRANSMISSION

Allowed:

- A.** Any automotive engine with production of 5,000 or more and available to the public in the USA.
 - B.** Maximum 4 cylinders and a maximum of 4 valves per cylinder.
 - C.** Air cooled 1915 cc maximum.
 - D.** 2 valves per cylinder, 1715 cc maximum, water cooled.
 - E.** 3 or more valves per cylinder, 1650 cc maximum, water cooled.
- The TORC Series/USAC Technical Director must approve all transmissions.
- F.** Transmissions must be production, cataloged and available through regular dealer channels.
 - G.** All forward gears and reverse gears must be in working order.

Not Allowed:

Rotary engines.

4. CARBURETOR

Allowed:

- A.** One carburetor for water-cooled. 2 carburetors for air-cooled.
- B.** Maximum of two venturis per carburetor.
- C.** Maximum venturi size:
 - 1.** Two valve engines maximum 42 MM.
 - 2.** Four valve engines 1600 CC and smaller maximum 29 MM.
 - 3.** Four valve engines 1601 CC to 1650 CC maximum 28 MM.

5. WHEELS AND TIRES

D.O.T. tires are mandatory.

Refer to COMBINED CLASS RULES (CCR), paragraph 33.

6. RADIOS

Frequency must be registered with TORC Series.

All PRO Super Buggy teams must be equipped with a two-way radio and a spotter.

Refer to COMBINED CLASS RULES (CCR), paragraph 37.

ALL CCR APPLY AS SET FORTH IN THIS TORC SERIES RULEBOOK.

1600 BUGGY

DEFINED AS- A limited 4-wheel vehicle utilizing a type-1, 1600 c.c. Volkswagen air-cooled engine with one person in the vehicle. Division rules supersede CCR. Race Numbers are 300 to 399

Note: In an effort to unify the rules in this class, either single or dual port heads may be used in 2009. Dual port engines will be using the 2008 Western short course rules including the 21.5mm restrictor plate and the EMPI 981293B adapter plate. Single port engines will use the following 2008 Midwest short course rules but will not use a restrictor plate. Testing will be on-going and if a significant performance advantage is found, rule adjustments will be made.

1. CHASSIS

A. Minimum wheelbase is 95 inches.

B. M. Maximum front track width from wheel mounting surface to wheel mounting surface at ride height will be 56 inches.

2. FRONT SUSPENSION

Allowed:

A. Type "1" Volkswagen suspension only. Stock beam width 34 3/16 inches only.

B. Any reinforced stock or custom manufactured parts as long as stock dimensions and measurements are maintained.

C. Reinforcement of stock components.

D. Front axle torsion tubes may be cut, rotated, torsion adjusters installed and re-welded.

E. Ball joint or kingpins.

F. Any manufacture tie rods and tie rod ends.

G. Stock towers may be strengthened, replaced, extended, but must be attached to the front beam.

H. Trailing arms can be reinforced or replaced with after market arms. Stock dimension must be maintained.

I. Lower shock mounting stud may be relocated and/or enlarged.

J. Spindles may be reinforced or replaced.

K. Any manufacture's torsion bars allowed.

L. Sway bars can be removed.

Not Allowed:

A. Any type of secondary suspension.

B. Aluminum front axle beams.

3. REAR SUSPENSION

Allowed:

A. Volkswagen type 1 IRS or swing axle only. The rear track width with drum brakes must not exceed 51 inches from backing plate flange to backing plate flange, while at ride height. If disk brakes are used, track width will not exceed 58.75 inches measured between the wheel mounting surfaces, while at ride height.

B. Strengthening or replacement of the IRS swing arms as long stock dimensions are retained plus or minus 1 inch. Stock dimensions: from the centerline of the rear torsion housing to the center of the rear stub axle-16.25 inches, plus or minus 1 inch. The maximum measurement will be 17.25 inch.

C. Torsion adjusters.

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D. Out board bus/type 2 reduction gears.

E. Any manufactured rear torsion bars, axles, spring plates and additional retainer straps as long as original type suspension is retained.

F. Rear torsion tube may be strengthened or replaced stock/maximum width is 40.5 inches.

G. Trailing arm bracket must be 13.50 inches plus or minus 1 inch, measured from the inside of the spring/flex plate to the inner most flange of the trailing arm pivot point.

Not Allowed:

Any type of secondary suspension.

4. SHOCK ABSORBERS

Allowed:

A. Any size or number.

B. Cooling fins.

Not Allowed:

Air or coil over shocks.

5. STEERING

Open.

6. BRAKES

Any manufacturer drum or disk brakes allowed. Inboard brakes are not allowed.

7. WEIGHT

A. Minimum weight with driver is 1,580 pounds at race end. Cleaning of vehicle may be required.

B. Ballast allowed with 3/8 minimum bolts to secure ballast to the frame.

8. ROOF

Required

A. .075 Aluminum or 16 gauge (.063) steel sheeting.

B. Opening roof must have a heavy-duty hinge with a secure latching system.

C. Positive latching system must be TORC Series approved.

9. FUEL CELLS

MANDATORY - CCR RULES APPLY - Paragraph 28

10. ENGINE

A. Must be Volkswagen Type "1", 1600 CC, US specification, as received from the factory.

B. Maximum engine displacement will be 1600 CC.

C. Maximum bore allowed is 85.5 MM. Maximum stroke allowed is 2.7465. (69 MM stroke, ±.015)

D. No titanium composite parts or materials allowed in engine.

11. CASE

Allowed:

A. Any type 1, 2, 3 or universal case.

B. Align bored.

C. Drilled and/or tapped for oil pressure and/or temperature sending unit.

D. Machined or push in crank pulley seal.

E. Case savers.

F. Seating surfaces for cylinders may be machined.

G. Oil galleries on the early cases may be enlarged to 10 MM, the same as a universal case.

H. All oil gallery plugs may be removed and threaded.

I. Oil by pass pistons and springs-open.

J. Oil sump windage trays.

K. Internal de-burring.

Not Allowed:

Any other modifications.

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12. CRANKSHAFT

Allowed:

A. Stock Volkswagen type "1" 1600 CC only.

B. Any gears.

C. Any size power pulley.

D. Sand seals.

E. .030 undersize.

F. Balancing.

G. Any brand bearings as long as stock dimensions are maintained.

Not Allowed:

Polishing, knifing and/or lighting counterweights.

13. CONNECTING RODS

Allowed:

- A. Volkswagen #311 "b" rods only. 5.395 length plus or minus .010. Measured C/L to C/L.
- B. Balancing of rod and pistons is allowed.
- C. When balancing one small end and one large end must be left untouched.

Not Allowed:

- A. Bolts rather than the pressed studs and nuts will identify Volkswagen "a" rods.
- B. Polishing and profiling.

14. OIL PUMP/SYSTEM

Allowed:

Any manufacturer wet sump pump.

Not Allowed:

- A. Deep and/or dry sumps.
- B. Sump alterations.

15. PISTON ASSEMBLIES AND CYLINDERS

Allowed:

- A. Any manufactured flat top pistons but stock dimensions must be retained 85.5 MM. Three ring pistons only.
- B. Wrist pin retainer may be of any style.
- C. Balancing of rod and pistons allowed.
- D. Minimum piston weight of 310 grams.
- E. Cylinders may be machined for proper deck height.
- F. Piston skirts may be drilled. 3 -1/8 inch diameter holes per side. A total of 6 holes.

Not Allowed:

- A. Slipper skirts, dished or domed pistons.
- B. Machined notching for valves.
- C. Cutting of the piston top other than 90 degrees.

16. CAMSHAFT AND CAMSHAFT GEAR

Any manufacturer.

17. CYLINDER HEADS

Allowed:

- A. U.S. sedan stock single port design.
- B. Fly cutting for compression.
- C. Combustion chamber volume open.
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- D. Three angle valve jobs only, 15-45-75-only.
- E. Welding of the cylinder head-may not be welded 360 degrees in the cylinder seating surfaces.
- F. Welding for repairs only.

Not Allowed:

- A. Grinding, polishing or porting in any area of the head, no back cutting of the valves.
- B. Angle cutting of the head.

18. VALVES

Allowed:

- A. One-piece valve of any manufacturer, stock sizes must be maintained. Intake 35.5 MM, exhaust 32.0 MM.
- B. Stainless steel.
- C. Single 45-degree angle.
- D. Valve guide may be bronze, cast iron or steel of any, manufacture and length.
- E. Valve guide seal.
- F. Any manufacture of valve springs, spring retainers and lifters.
- G. Stock valve spring seat diameter in the head-inner and outer must be maintained.

Not Allowed:

- A. Grinding, polishing, blending or porting of any kind.
- B. Titanium valves or any other exotic materials.
- C. Swirl polished valves.

19. ROCKER SHAFTS AND ARMS

Allowed:

- A. Any shaft that permits the use of stock Volkswagen type "1" 1600 cc 1.1 to 1 rocker arms.
- B. Stock Volkswagen type-1, 1600 cc rocker arms only.
- C. Resurfacing of rocker arms to accept swivel adjusters.

- D. Any manufacture push rods and tubes.
- E. Any manufactured valve covers and gaskets.

Not Allowed:

- A. Any other modifications.
- B. Needle or roller bearings

20. INTAKE MANIFOLD

Allowed:

- A. Stock single port only.
- B. **Spacer (carburetor to intake) no more than 3/8 inch thick with a straight bore the same diameter as the carburetor.**
- C. Heater tubes removed.
- D. May be shortened but not welded back together. Hose and clamps must be used to secured the manifold back together and allow inspection.

Not Allowed:

- A. Any modifications.
- B. Chemical milling.

21. CARBURETOR, FUEL PUMP, AIR FILTER

Allowed:

- A. Stock Volkswagen 30 pic 1, 2, and 3 only.
- B. Maximum Venturi size 24.10 MM.
- C. Removing of automatic chock housing, choke plate and shaft.

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- D. Stock float bowl vent may be removed and plugged, external float vent allowed.
- E. Any fuel pump stock or electrical, any fuel pressure regulator.
- F. Any manufacture air/fuel filter and any location allowed.
- G. Velocity stacks.
- H. Brosol PIC carburetor is allowed, no modifications to throttle shaft, throttle plate or venturi.

Not Allowed:

- A. Carburetor listed as pic 30.
- B. Bonding or welding of velocity stack to the carburetor.
- C. Internal modifications including polishing, filing or chemical milling.
- D. Removal of any parts from the throat area.

21. EXHAUST

Aftermarket exhaust allowed mufflers are optional.

23. FLYWHEEL

Allowed:

- A. Only stock diameter Volkswagen type 1 design with eight dowels and
- B. Lightening and balancing. Any gland nut and washer may be used.

Not Allowed:

Aluminum.

24. CLUTCH AND PRESSURE PLATE

Allowed:

- A. Stock diameter only.
- B. Balancing.

25. FAN SHROUD

Any manufacturers stock shroud.

26. IGNITION SYSTEMS

Distributor must be used to send current to the spark plugs. Only one distributor allowed.

Allowed:

- A. Battery ignition 6 or 12 volt. Stock or direct replacement coil only.
- B. Any manufacturer distributor. Magnetic pick ups that directly replaces the points.
- C. Any Volkswagen alternator or generator in the stock location

Not Allowed

Magneto, multiple coil and direct fire ignition system.

27. TRANSMISSION

Allowed:

- A. Stock Volkswagen type 1 or 2 transaxle housing with only four forward gears.
- B. Any gear combinations using only Volkswagen style gears.

C. Internal modifications.

Not Allowed:

Gears other than Volkswagen.

28. OIL COOLERS

Allowed:

Any full flows system mounted in any safe location.

29. WHEELS AND TIRES

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Refer to COMBINED CLASS RULES (CCR), paragraph 33.

A. D.O.T tires only and available to the general public.

B. Wheels that mount directly to Volkswagen drum.

30. RADIOS

All frequencies must be registered with TORC Series.

Refer to COMBINED CLASS RULES (CCR), paragraph 37.

ALL CCR APPLY AS SET FORTH IN THIS TORC SERIES RULEBOOK.

SAFETY & EQUIPMENT

- 1. All teams must have a fire extinguisher in their pit area.**
- 2. All racers must wear pants, long sleeves, boots (of some kind), helmet, protective eyewear, gloves.**
- 3. Machine Width can be a maximum track width of 93 inches.**
- 4. Harnesses must be securely fastened on both occupants at all times. Safety nets or arm restraints are HIGHLY recommended in all classes.**
- 5. All machines must start the race with a silencer/muffler.**
- 6. The machine a team leaves the starting line on is the official machine of the team for that event, and may not be switched during the event. The driver/passenger in a truck or buggy during the endurance race can swap.**
- 8. Fuel can only be carried inside the machine's fuel tank.**
- 9. All machines must have a working kill/off switch.**
- 10. Horns, bells or other sound devices are allowed on machines for safety.**
- 11. All machines must have a working head and tail lights or alternative lighting during night session. If lights are to fail, you must remain in the pit area until they are repaired or will be given a penalty of 1 lap.**
- 12. Machines may be tested by officials any time prior to, during or after the event.**

REGISTRATION:

- 1.** Competitors will be identified by the Team name. Both the driver and the passenger must be present at registration and sign all required forms.
- 2.** All machines and competitor helmets must be taken through **Tech Inspection** prior to racing for the purpose of helmet tag placement, and number assignment. Safety equipment and machine eligibility are the sole responsibility of the Team.

START PROCEDURE:

- 1.** Teams will be assigned a Start Row. Teams shall line up according to the lineup that is posted at the start.
- 2.** A Drivers Meeting will be conducted on the starting line before the start of each race. All competitors are responsible for attending.
- 3.** The start of the race will be a live engine start and the drop of a green flag.

For the endurance race:

- a.** Teams will roll up to the Start Line when directed and stop.
- b.** There will be a 30 second warning and then the start will be in the last 10 seconds.

SCORING:

- 1.** As of now, we will be using hand scoring. So, make sure we can read your numbers!
- 2.** There will be multiple checkpoints throughout the course. Machines must come to a **complete stop** at the checkpoints.
- 3.** If you cut the course, your time will show it and you **WILL BE DISQUALIFIED!**

THE ENDURANCE COURSE:

- 1.** The Endurance course will generally be about 4+ miles in length, and will include trails, roads, hills, short-course tracks, or any type of terrain which can be negotiated by a truck or buggy.
- 2.** The course will be open Friday and Saturday before the race. Teams are permitted pre-run the course to setup their GPS and maps. (We may change it right before the race!)
- 3.** Marking, cutting, tampering with or otherwise changing the course in any manner is strictly prohibited. Course modifications may only be made by an official.
- 4.** No one, except officials and drivers officially entered, may drive on the race course at any time during the event.

ENDURANCE ON TRACK REGULATIONS:

- 1.** Machines must remain on the marked course. The marked course is within 25 feet of race arrows. However, machines must stay within the confines of the following markers: **double arrows** posted on both sides of the trail, ribbons, signs, stakes, hay bales, barrels, motocross track, grass track, etc..
- 2.** Teams encountering a traffic jam or **bottleneck** may go more than 25 feet off the course to get around the bottleneck only. However, the Team must re-enter the course as soon as possible, and upon approaching this section the next lap, must drive the original arrowed section if the track is clear. If the original marking devices are knocked down, the Team must stay on the original marked course regardless. A "bottleneck" is a section of the track that becomes impassable for any reason, with the exception of check points.
- 3.** Machines may not cut to the inside of a **white pole corner marker**.
- 4.** If a machine leaves the course for any reason it must re-enter where it left.
- 5.** Teams may make repairs and otherwise receive **mechanical assistance** anywhere along the course from anyone. All such repairs and assistance must be made without causing interference with other competitors in a suitable area off the racetrack.
- 6. Radios** are permitted between pit crew members, drivers, and passengers.
- 7. Reckless Driving.** No driver may operate his machine in such a manner as to endanger life or limb of other competitors, officials or the public. Drivers will be penalized for the reckless operation of their machine, including but not limited to the deliberate ramming, blocking or intentional contact with another Team, or for running into an official. Competitors are solely responsible for their own safety.
- 8. Team Tactics** are prohibited, and include but are not limited to: blocking, allowing another Team to pass in order to affect the outcome of the race, or exchanging machines in order for another Team to continue the race. Teams involved will be penalized.
- 9. Unsportsmanlike Conduct.** Persons whose appearance, conduct, associations or affiliations, on or off the track, deemed not conducive to the best interest of this sport or who exhibit conduct which is inappropriate, offensive, abrasive or in bad taste, may be excluded or suspended from AORRacing at the discretion of the Race Director.

Competitors engaged in any event, public appearance, media activity or any other situation relating to their participation in the series must refrain from intentional physical contact with any participant, inappropriate or profane language, fraud, and unsportsmanlike behavior. At the sole discretion of AORRacing, competitors who exhibit behaviors deemed inappropriate or unsportsmanlike, prejudicial or detrimental to the best interests of the sport, or detract from the enjoyment, appreciation or interests of the fans, sponsors or other supporters of the sport, may be penalized by docking of points, disqualification, or both. Such penalties are not subject to protest or appeal.

- 10. IMPORTANT:** Alcohol or narcotics in designated pits, on the race course or in the surrounding areas by any person is strictly forbidden. Any entrant or crew member in an event that shows evidence whatsoever of being under the influence of any of aforementioned shall be subject to suspensions from all future AORRacing sponsored events. You can drink after the event if you so wish. This is a family event. Keep that in mind.

THE SHORT-COURSE:

1. The short-course will be 50' wide with long smooth table-tops, jumps, moguls, etc. This is a NOT MX style track.
2. The short-course will not be open for riding 3 days before the race. Practice will be before the race on race day.
3. Each heat will be 10 laps and the main will be 15 laps. We will shorten the track for the youth classes. Youth classes will probably be 5 and 8 laps.
4. Normal flag colors apply:

Green:	Go under normal conditions.
Yellow:	Caution, no passing in this area.
Red:	Restart of race.
White:	1 lap left to go.
Blue with yellow diagonal strip:	You are being lapped, please move aside.
Black:	Disqualification, please get off track and proceed to officials.

RACE FINISHES:

1. The race officially ends for all contestants at the completion of the lap in which the checkered flag is displayed to the winner.
2. To be considered as having completed a lap, the driver and his machine must cross the finish under the machine's unaided ability. Towing is not allowed. If a machine is towed in from the course, that lap will not count.
3. Machines will be scored in order of finish and laps completed. It is not necessary to complete all laps in order to be scored.
4. **Endurance:** Teams have 15 minutes to finish the race after the overall winner takes the checkered flag. A Team may question the results within the 30-minute period following posting of the final results. Afterwards, awards will be given out.
5. Awards are given at the rate of 1 per 3 team entries. To win an award, a team must complete 50% of the laps of the class winner. One award will be given per team.
6. **Impound:** After the race, the top three overall teams, as well as any other team requested by an official to do so, must leave their machines at a designated impound area until released by the official.
7. **Protests** must be in writing and specify the grounds for the protest.
8. **Penalties** will be assessed at the discretion of the official based on the severity of the offense, and may include one or more of the following: position(s), lap(s), time adjustment, disqualification, suspension, loss of championship points, fine, probation, etc.

2010 Summer/Fall Series Points

Place	Points
1 st	30
2 nd	25
3 rd	20
4 th	15
5 th	10
6 th	9
7 th	8
8 th	7
9 th	6
10 th	5
11 th	4
12 th	3
13 th	2
14 th +	1
DNF	0