

# 2023-2024 4" NASCAR Rules

## CHASSIS:

Any of the following that are still in production:

JK Cheetah 7 (any variant)

JK Cheetah (any variant such as 21, 24, 25)

JK Aeolos (any variant)

Champion Turboflex

Parma Flexi 1, 2, 3, 4, or 5

Mossetti Titan (All OEM options such as 2pc, 3pc, It pans, bite clips)

Mossetti Patriot (All OEM options such as 2pc, 3pc, It pans, bite clips)

Mossetti Striker (All OEM options such as 2pc, 3pc, It pans, bite clips)

Mossetti Avenger

ProSlot 5000, 1, 2, 3, 4, or C

RM Arrow

Mid-America Mercury (MID214 & 214N)

Mid-america Gemini (MID216 & 216N)

Acceptable modifications below:

May interchange parts from a single manufacturer; such as Flexi and Flexi-2 parts, JK long or short center sections, and heavy or light pans on JK chassis.

May solder or glue motor, axle bushings, front wheel retainers, etc.

May add lead weight and tape to chassis.

May file holes in motor bracket to allow better gear mesh, but must retain a portion of motor bracket.

May file bushings or upright holes vertically to offset bushings or use offset bushings.

May add spacers between pan and center section.

May add motor mount(s), rear upright brace(s) and gear protector, Brace must not stiffen chassis front to back

The original manufacturers plating may be removed in the area to be soldered only.

May add pin tubes. Pin tubes may be either solid or floating. May add lead wire retainer.

May solder on steel guide tongue reinforcement such as Slick 7 but the original tongue may not be removed, modified, or moved.

No other modifications, cutting, grinding, or bracing are allowed.

One guide per car. May use any guide, nut, spacers, lead wire and clips.

Maximum width, with body is 83mm.

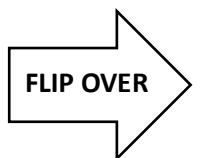
Minimum track clearance, .047" including gear, measured under rear axle before the race. Race

director may check for dragging chassis at any time and/or minimum .039" before any heat.

Any repairs will be performed during green flag conditions.

Rear axle must be solid, steel, one piece, mi 3/32" dia.

Rear tires must be black rubber, maximum .810" width.



**BODY:**

Racers will have the ability to race any body available through current retail channels which include online, local raceways, and distributors, unless deemed illegal by the technical director. The below will be strictly enforced.

Current known bodies that will be deemed illegal to run MSSRA:

Mid America MID946

(Mid America MID945 is now legal)

Must have:

Front Bumper minimum – 1/16”

Rear Bumper minimum –1/8” (we are aware of some Red Fox Toyota bodies without a distinctive bumper. Current ruling is rear of body must extend down at least 1” from top of rear spoiler to be deemed legal.)

Rear Spoiler height – No limit

Body must be fully painted and opaque. Chassis/ track surface must not be visible, viewed overhead. No clear sides.

All windows must be clear.

Must have 3 decal or painted numerals, appropriately placed on body to resemble real race.

Must have full, detailed interior that completely hide chassis when viewed overhead, paper or plastic.

May reinforce body with tape and/or Lexan.

No add-on air control devices.

No alterations or additions to the manufactures dimensions.

Any cut-outs or openings must be the same as on the actual car.

Front wheels – must be seen through clear or cut out wheel wells, or realistic wheel stickers on the outside.

**MOTOR:**

ProSlot 4002FK (See Motor Rules)

ProSlot 4007FK (See Motor Rules)

ProSlot Speedball PS9000 (See Motor Rules)

JK Hawk 7 (See Motor Rules)

JK Hawk 7BB (See Motor Rules)

MSSRA D-Can (See Motor Rules)

Mid America Eagle (See Motor Rules)

Chicagoland CR-102 “Stage 2” (See Motor Rules)

# 2023-2024 4.5" NASCAR/Scale Rules

## CHASSIS:

Any of the following that are still in production:

JK 5 Scorpion 1 Stainless Steel Chassis - JK2915S

JK 5" 1 pc chassis with Slot -JK25231

JK 5" Cheetah 7 - JK25017 with any JK Cheetah 7 pans  
(2532/2533/25047/25057/25047AL)

JK 5 Scorpion 2 Steel or Stainless- JK2915

JK 5" C21 - JK25321/25322/25323

Champion 4 1/2" Turboflex -CH-430 with any Champion Turboflex pans

Parma Flexi 2 - #596B

Parma Flexi 3 - #606

Mossetti 4.5" (includes blue pan)

RM Arrow

\*LTO/Oval chassis of these suppliers will be allowed.

Wheelbase must be 4 ½"

Front axle must be solid, one piece steel, minimum 3/32" dia. and pass through both front uprights

Front tires must be black rubber, minimum .675" dia. 400" width

Front wheels may rotate independently

Front axle may be soldered, but front wheels must rotate. Axle holes may be enlarged to allow front tires to touch the track

No modifications except for the following:

May interchange parts from a single manufacturer; such as Flexi and Flexi-2 parts, JK long or short center sections, and heavy or light pans on JK chassis.

May solder or glue motor, axle bushings, and front wheel retainers.

May add lead weight and tape to chassis.

May file holes in motor bracket to allow better gear mesh, but must retain a portion of motor bracket.

May file bushings or upright holes vertically to offset bushings, or use offset bushings.

May add spacers between pan and center section.

May add motor mount(s), rear upright brace(s) and gear protector. Brace must not stiffen chassis front to back

The original manufacturer's plating may be removed in the area to be soldered only.

May add pin tubes. Pin tubes may be either solid or floating. May add lead wire retainer.

May solder on steel guide tongue reinforcement such as Slick 7 but the original tongue may not be removed, modified, or moved.

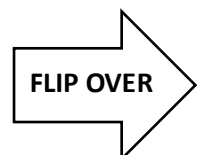
No other modifications, cutting, grinding, or bracing are allowed.

One guide per car. May use any guide, nut, spacers, lead wire and clips.

Minimum track clearance, .047" including gear, measured under rear axle before the race. Race director may check for dragging chassis at any time and/or minimum .039" before any heat. Any repairs will be performed during green flag conditions.

Rear axle must be solid, steel, one piece, min 3/32" dia.,

Rear tires must be black rubber, maximum .810" width.



*Eff. Nov. 1<sup>st</sup>, 2023*

**BODY:**

Racers will have the ability to race any body available through current retail channels which include online, local raceways, and distributors, unless deemed illegal by the technical director. The below will be strictly enforced.

Current known bodies that will be deemed illegal to run MSSRA:

O/S Ford Taurus - High Downforce (O/S 072ss HD)

RTR 4.5" Titan XL

No COTs

Body dimensions must be as follows:

Maximum width, with body is 83mm.

Front Bumper: Minimum 1/4 inch (35mm) measured from the top of bumper down.

Rear Bumper: Minimum 1/8 inch (18mm) measured from top of bumper down.

Body must be fully painted and opaque. Chassis/ track surface must not be visible, viewed overhead. No clear sides.

All windows must be clear.

Must have 3 decal or painted numerals, appropriately placed on body to resemble real race cars.

Must have full, detailed interior that completely hides chassis when viewed overhead, paper or plastic.

Front wheel wells must be cut out to reveal 75% of wheel, viewed from the side.

May reinforce with tape and/or Lexan.

No add-on air control devices.

No alterations or additions to the manufactures dimensions.

Any cut-outs or openings must be the same as on the actual car.

**MOTOR:**

MSSRA D-Can (See Motor Rules)

# 2023-2024 LMP Rules

## CHASSIS:

Any of the following that are still in production:

JK Cheetah 7 (any variant)

JK Cheetah (any variant such as 21, 24, 25)

JK Aeolos (any variant)

Champion Turboflex

Parma Flexi 1,2,3,4, or 5

Mossetti Titan (All OEM options such as 2pc, 3pc, Lt pans, bite clips)

Mossetti Patriot (All OEM options such as 2pc, 3pc, Lt pans, bite clips)

Mossetti Striker (All OEM options such as 2pc, 3pc, Lt pans, bite clips)

Mossetti Avenger

ProSlot 5000, 1, 2, 3, 4, or C

RM Arrow

Mid-America Mercury (MID214 & 214N)

Mid-america Gemini (MID216 & 216N)

No modifications except for the following:

May interchange parts from a single manufacturer; such as Flexi and Flexi-2 parts, JK long or short center sections, and heavy or light pans on JK chassis.

May solder or glue motor, axle bushings, front wheel retainers, etc.

May add lead weight and tape to chassis.

May file holes in motor bracket to allow better gear mesh, but must retain a portion of motor bracket.

May file bushings or upright holes vertically to offset bushings or use offset bushings.

May add spacers between pan and center section.

May add motor mount(s), rear upright brace(s) and gear protector, Brace must not stiffen chassis front to back

The original manufacturers plating may be removed in the area to be soldered only.

May add pin tubes. Pin tubes may be either solid or floating. May add lead wire retainer.

May solder on steel guide tongue reinforcement such as Slick 7 but the original tongue may not be removed, modified, or moved.

No other modifications, cutting, grinding, or bracing are allowed.

One guide per car. May use any guide, nut, spacers, lead wire and clips.

Maximum width, with body is 83mm.

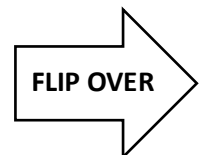
Minimum track clearance, .047" including gear, measured under rear axle before the race. Race

director may check for dragging chassis at any time and/or minimum .039" before any heat.

Any repairs will be performed during green flag conditions.

Rear axle must be solid, steel, one piece, mi 3/32" dia.

Rear tires must be black rubber, maximum .810" width.



**BODY:**

Racers will have the ability to race any body available through current retail channels which include online, local raceways, and distributors, unless deemed illegal by the technical director. The below will be strictly enforced.

Current known bodies that will be deemed illegal to run MSSRA:  
O/S Stealth LMP (O/S-501)

Front Bumper must end in a vertical plane.

Body must be fully painted and opaque Chassis/ track surface must not be visible, viewed overhead

No clear sides.

All windows must be clear.

Must have 3 decal or painted numerals, appropriately placed on body to resemble real race cars.

Must have full, detailed interior that completely hides chassis when viewed overhead, plastic or paper.

Rear spoiler must step, no scoop or curved rear spoiler.

May reinforce with tape and/or Lexan.

No add-on air control devices.

No changes or additions to manufactures dimensions.

Any cut-outs or openings must be same as actual car

Front wheels –must be seen through clear or cut out wheel wells, or realistic wheel stickers on the outside.

**MOTOR:**

ProSlot 4002FK (See Motor Rules)

ProSlot 4007FK (See Motor Rules)

ProSlot Speedball PS9000 (See Motor Rules)

JK Hawk 7 (See Motor Rules)

JK Hawk 7BB (See Motor Rules)

MSSRA D-Can (See Motor Rules)

Mid America Eagle (See Motor Rules)

Chicagoland CR-102 “Stage 2” (See Motor Rules)

# 2023-2024 GTP Rules

## CHASSIS:

Any of the following that are still in production:

JK Cheetah 7 (any variant)

JK Cheetah (any variant such as 21, 24, 25)

JK Aeolos (any variant)

Champion Turboflex

Parma Flexi 1,2,3,4, or 5

Mossetti Titan (All OEM options such as 2pc, 3pc, Lt pans, bite clips)

Mossetti Patriot (All OEM options such as 2pc, 3 pc, Lt pans, bite clips)

Mossetti Striker (All OEM options such as 2pc, 3pc, Lt pans, bite clips)

Mossetti Avenger

ProSlot 5000, 1, 2, 3, 4, or C

RM Arrow

Mid-America Mercury (MID214 & 214N)

Mid-america Gemini (MID216 & 216N)

No modifications except for the following:

May interchange parts from a single manufacturer; such as Flexi and Flexi-2 parts, JK long or short center sections, and heavy or light pans on JK chassis.

May solder or glue motor, axle bushings, front wheel retainers, etc.

May add lead weight and tape to chassis.

May file holes in motor bracket to allow better gear mesh, but must retain a portion of motor bracket.

May file bushings or upright holes vertically to offset bushings or use offset bushings.

May add spacers between pan and center section.

May add motor mount(s), rear upright brace(s) and gear protector, Brace must not stiffen chassis front to back

The original manufacturers plating may be removed in the area to be soldered only.

May add pin tubes. Pin tubes may be either solid or floating. May add lead wire retainer.

May solder on steel guide tongue reinforcement such as Slick 7 but the original tongue may not be removed, modified, or moved.

No other modifications, cutting, grinding, or bracing are allowed.

One guide per car. May use any guide, nut, spacers, lead wire and clips.

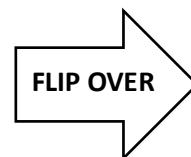
Maximum width, with body is 83mm.

Minimum track clearance, .047" including gear, measured under rear axle before the race. Race director may check for dragging chassis at any time and/or minimum .039" before any heat.

Any repairs will be performed during green flag conditions.

Rear axle must be solid, steel, one piece, mi 3/32" di.

Rear tires must be black rubber, maximum .810" width.



**BODY:**

Racers will have the ability to race any body available through current retail channels which include online, local raceways, and distributors, unless deemed illegal by the technical director. The below will be strictly enforced.

Current known bodies that will be deemed illegal to run MSSRA:  
O/S Stealth GTP (O/S-520)

Front Bumper minimum 1/16 inch (59mm)

Body must be fully painted and opaque. Chassis/ track surface must not be visible, viewed overhead. No clear sides.

All windows must be clear.

Must have 3 decal or painted numerals, appropriately placed on body to resemble real race cars.

Must have full, detailed interior that completely hides chassis when viewed overhead, paper or plastic.

May reinforce with tape and/or Lexan.

No add-on air control devices.

No alterations or additions to the manufactures dimensions.

Any cut-outs or openings must be the same as on the actual car.

Front wheels – must be seen through clear or cut out wheel wells, or realistic wheel stickers on the outside.

**MOTOR:**

Any motor legal in any other MSSRA class

MSSRA 16-D w/tagged 16-D or S16-D arm (See Motor Rules)

MSSRA 16-C (See Motor Rules)

Mid America Phoenix, incl BB and Supra (See Motor Rules)

RTR Raptor Pro (See Motor Rules)



# 2023-2024 MSSRA Motor Rules

## MSSRA 16D Motors

MSSRA is allowing the Camen D-can set up  
May only use motor cans & end bells listed  
The only allowable cutouts are 1/8inch (18 mm) notches for axle clearance  
May remove plating for soldering  
No other cutting, grinding, drilling allowed

Must meet the following minimum inside dimensions:

Height: 0.600 inches (124 mm)  
Width: 0.875 inches (223 mm)  
Length: 0.950 inches (213 mm)

### No modifications allowed except as noted:

May add can screws  
May use Ball Bearing in can (bushing only in end bell)  
May solder bearing in can  
May enlarge can bearing hole to allow centering of stock size bearing  
May change brushes  
May interchange parts between manufacturer's approved set-ups  
May use any USRA approved C or D can end bell hardware  
May solder and/or glue end bell hardware together  
May use any three-coil springs

### Prohibited Modifications:

Machine work or drilling on can or end bell  
May not reverse can bearing  
May not alter outside diameter of bearing (excluding flange)

### May only use the following motors and setups:

Fast Ones FO260DC  
Fast Ones FO273B  
Fast Ones FO260 with Flat Tip Magnets in Twister Setup  
Fast Ones FO260-FT Twister 16Dsetup w/ Flat Tip Magnets  
Fast Ones FO260-SF Silver Foxx 16DSetup  
Kelly 581 G2 Thin  
Kelly 731 G2 Kelly 732 G2  
Kelly 580 G2 16D Setup w/ new/old hardware  
Kelly/ProSlot 2004 setup

Kelly/ProSlot 2000 motor  
Kelly 270 D1X magnets  
Parma Rotor setup  
Parma Deathstar  
Parma 498IX, 499IX (setup only)  
Parma 499IX (setup only)

### **Magnets:**

Must be stock one piece single (no quads) ceramic magnets as found in the production motor  
Must be commercially available through major distributors  
May not contain "rare earth" materials (defined as elements with atomic weights 58 through 71)  
May zap magnets  
May shim magnets  
May use any type of adhesive to glue in magnets to cans  
Magnets meet the following minimum dimensions:

Height: 0.570 inches (148 mm)  
Length: 0.650 inches (151mm)  
Thickness: 0.145 inches (68 mm)

Polishing and honing is allowed, but minimum dimensions must be maintained

### **Armatures:**

Must be commercially available, meet all USRA manufacturing specs, and be approved for use in this class by the National USRA during the last 10 years.

No aluminum commutators.  
No split-stack/lamination arms allowed  
May not be modified in any way by anyone except the factory, except as prescribed above  
May have Armature reconditioned  
May have Armature balanced  
May re-true commutator  
May add spacers to limit end play  
May remove coating  
May dye armature  
May use any air gap  
Must meet the following minimum dimensions:

Stack Diameter: 0.513 inches (103mm) excluding coating  
Stack Length: 0.600 inches (124 mm)

Must be wound with 70 series-wound turns of AWG #30-gauge wire (0.0099–0.0101 inches excluding insulation) per pol

Must be tagged 16D

**Approved 16D armatures are:**

Fast Ones D-Spec 351 (.518 di) /350  
Mura 2216  
Parma 72013 / 72015  
ProSlot 701 or 706 with or w/o M2blank  
RJR 922B or 946B (.518 dia)  
BOW (MSSRA only)  
North vs. South (NvS arms)

*Hawk 7 inc. BB, Falcon7, Evil9, Demon, Eagle, CR-102*

May install heat sink on motor or armature  
May modify with cutouts that are 1/8 inch (18 mm) notches for axle clearance  
No other alterations allowed

*ProSlot PS4002FK, PS4007FK (Scorpion), PS9000 (Speedball)*

No modifications allowed except as noted:

May change or alter brushes and/or springs  
May solder can bearing  
May apply fingernail polish to seal  
May apply CA to magnets

**16C Can Cans and End bells:**

May only use motor cans & end bells listed  
May modify with cutouts that are 1/8 inch (18 mm) notches for axle clearance  
May remove plating for soldering  
No other cutting, grinding, drilling allowed

Must meet the following minimum inside dimensions:

Length – 0.925 inches (250 mm)  
Width – 0.835 inches (221 mm)  
Height – 0.560 inches (122 mm)

No modifications allowed except as noted:

May add can screws  
May use Ball Bearings in can and end bell  
May solder bearing in can  
May enlarge can bearing hole to allow centering of bearing  
May change brushes  
May interchange parts between manufacturer's approved set-ups  
May use any USRA approved C or D can end bell hardware  
May solder and/or glue end bell hardware together  
May use any springs  
May use shunt wire or spring insulation

### **Prohibited Modifications:**

Machine work or drilling on can or end bell  
May not reverse can bearing  
May not alter outside diameter of bearing (excluding flange)

May only use the following motors and setups

Cahoza 230, 231, 232  
Camen K102, K202  
GT1 277 T-5 magnets (flat tipped)  
Kamen K050, K100, K101, K102  
Kelly/Red Fox 1001 Ultra Lite Plated Can  
Kelly/Red Fox 50, 52, 53, 54, 55  
Kelly/Red Fox 60, 70  
New end bell for all Kelly motors  
Kelly KE253 C1X magnets  
Red Fox Boxstock magnets  
Koford M408 & M504 series, M527  
Koford M604, 605, 606, 607, 630Magnets  
Mura-Any based on M3205 setup  
Parma 455 (setup only)  
ProSlot-Any based on 750 VIP/SRS setup

### **Armatures**

Must be commercially available, meet all USRA manufacturing specs, and be approved for use in this class by the National USRA during the last 10 years. No aluminum commutators.  
("Hottest" wind allowed is the S-16C armature, therefore, any legal Contender/Competitor, S-Wasp and S16D armatures are included, as well as others)