



# STARTRAX OVAL RACING



## UK MODIFIED CAR SERIES RULES 2011

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THESE RULES ARE WRITTEN ALONG THE LINES OF THE MAIN MOD LITE AND DWARF CAR ORGANISATIONS CURRENTLY RUNNING IN NORTH AMERICA. SOME OF THESE HAVE BEEN ALTERED TO SUIT RACING IN THE UK AND EUROPE

ANYBODY WISHING TO PUT FORWARD A PROPOSAL FOR CHANGING ANY OF THESE RULES MUST DO SO IN WRITING THROUGH THE CORRECT CHANNELS. AND MUST BE AN ACTIVE UK MODIFIED DRIVER WITH A CURRENT STARTRAX ,UK MODIFIED LICENCE.

### **DEFINITION OF CAR**

A UK MODIFIED CAR SHALL BE 5/8 SCALE, SINGLE SEAT, FRONT ENGINE, PROPSHAFT DRIVEN, MOTORCYCLE ENGINE, REAR WHEEL DRIVE CAR. IT MUST HAVE A MINIMUM 6 POST ROLL CAGE. THE PROP SHAFT SHALL RUN TO THE RIGHT HAND SIDE OF THE DRIVER COMPARTMENT, BUT MUST BE FULLY ENCLOSED.

CARS MUST BE ONE OF 3 TYPES OF BODY STYLE, THESE ARE

A DIRT MODIFIED STYLE [MODLITE].

B CLASSIC STYLE LOOSLEY RESEMBLING AMERICAN CARS FROM 1928 -1948

C PICK UP STYLE, THESE MUST HAVE A DEFINED PICK UP STYLE BODY.

TOTAL LENGTH BUMPER TO BUMPER MAX 124"

TOTAL HEIGHT FROM GROUND MIN 42" MAX 50"

WHEEL BASE MIN 72" MAX 74"

FRONT TRACK WIDTH MAX 62"

REAR TRACK WIDTH MAX 62"

WEIGHT LIMIT

MINIMUM 460 KGS

MAXIMUM 530 KGS

### **SAFETY EQUIPMENT**

THE SEAT MUST BE A HIGH BACKED RACING TYPE. THE REAR BOTTOM OF THE SEAT WILL NOT BE MORE THAN 63"BACK, MEASURED FROM THE CENTRE OF THE TOP FRONT BALL JOINTS. THE SEAT MAY BE TILTED BACK FOR ADDED DRIVER HEAD CLEARANCE, BUT NO PART OF THE SEAT MAY BE BACK MORE THAN 70" AS MEASURED ABOVE . ALL CARS MUST HAVE A PERMANENT BAR BEHIND THE SEAT WHICH THE SHOULDER HARNESS PASS OVER BEFORE THEY PASS OVER THE DRIVER.

A FULL RACING HARNESS MIN 5 POINT X 3" IN GOOD CONDITION MUST BE USED. IT CAN BE FITTED BY EITHER LOOPING AROUND TUBULAR STEEL OR MINIMUM 10MM, HIGH QUALITY BOLTS WITH LOCKING NUTS.(NO D LINKS).

CRASH HELMETS MUST COMPLY WITH ORCi REGULATIONS - FIREPROOF GLOVES & OVERALLS MUST BE USED

FUEL TANK MUST BE MAX 4 GALLON, WITH A SEALED SCREW TYPE TOP WHICH WILL NOT LEAK IN THE EVENT OF A ROLL OVER. IT MUST BE POSITIONED BEHIND THE REAR FIRE WALL WITHIN THE CONFINES OF THE REAR CHASSIS RAILS OR ROLL BAR. THE SCREW CAP MUST HAVE THE CARS NUMBER CLEARLY MARKED ON THE TOP. THE FUEL PUMP MUST ALSO BE POSITIONED IN THE SAME AREA BEHIND THE REAR FIRE WALL.. IF AN AFTERMARKET FUEL PRESSURE REGULATOR IS USED ON A FUEL INJECTION CAR THIS MUST BE BEHIND THE FIRE WALL.

### **BATTERY**

THE BATTERY MUST BE SECURELY FITTED BEHIND THE REAR FIRE WALL. FUEL LINES AND BATTERY LEADS MUST NOT COME IN CONTACT WITH EACH OTHER ANYWHERE ON THE CAR. A BATTERY ISOLATOR SWITCH WHICH CUTS OFF ALL THE ELECTRIC ON THE CAR MUST BE FITTED ONTO THE REAR DECK LID OR REAR DOWN TUBE BEHIND THE DRIVER. THE SWITCH MUST BE WIRED UP TO THE NEGATIVE SIDE OF THE BATTERY, THE SWITCH MUST BE CLEARLY MARKED ON AND OFF,. ALL FUEL PUMPS MUST BE SWITCHED EITHER THROUGH THE ECU OR THE MAIN IGNITION SWITCH ON THE DASH. NO SEPARATE FUEL SWITCHES ARE ALLOWED.

CARS MUST HAVE FULL FRONT AND REAR FIRE WALLS MADE OF STEEL OR ALUMINIUM . MIN 1 MM THICKNESS. THE PROP SHAFT COVER MUST FOLLOW THE SAME MINIMUM SPEC. THESE MUST FULLY ENCLOSE THE DRIVER AREA WITH NO GAPS HOLES OR LOUVRES.

### **BALLAST**

MUST BE SECURELY BOLTED OR WELDED, IT MUST BE PAINTED A BRIGHT COLOUR WITH THE CARS NUMBER ON IT. MAY ONLY BE FITTED TO THE MAIN CHASSIS OR FRAME. NO BALLAST INSIDE DRIVERS COMPARTMENT. MAX BALLAST, 60LBS.

### **FRONT BUMPER**

WILL NOT BE WIDER THAN THE MIDDLE OF THE TREAD ON THE TWO FRONT TYRES , 2 HORIZONTAL BARS JOINED BY 2 CURVED ENDS AND MIN OF TWO\_VERTICAL UPRIGHTS, NO SHARP EDGES.

MIN DEPTH 6".

MAX DEPTH 8"

BUMPER WILL NOT EXTEND MORE THAN 12" FORWARD OF FRONT TYRES.

### **REAR BUMPER.**

MAX 56" LONG 2 HORIZONTAL BARS JOINED BY 2 CURVED ENDS AND MIN 3 VERTICAL UPRIGHTS. SHALL NOT EXTEND MORE THAN 8" BEHIND BODY PANELS. SHALL BE AT THE SAME HEIGHT AS THE FRONT BUMPER + - 1 INCH BOTH BUMPERS SHALL BE CONSTRUCTED OF MAX 1" X2.5MM TUBE.

### **MIRRORS**

CARS MUST HAVE A MINIMUM OF 2 MIRRORS , 1 EACH SIDE.

### **NERF BARS.**

FULL LENGTH RAILS BETWEEN FRONT AND REAR WHEELS ARE COMPULSERY. WITH A MINIMUM OF 3 MOUNTING POINTS, 1 AT THE FRONT , 2 TOWARDS THE REAR. MUST BE NO MORE THAN 3" WIDER THAN THE REAR WHEELS. MUST BE CONSTRUCTED IN SUCH A MANNER AS TO NOT INTERFERE WITH DOOR OPENINGS ON CLASSIC STYLE BODIES.

MAX 1,1/4" X3MM TUBE.

### **BRAKES.**

ALL FOUR WHEELS MUST HAVE BRAKES IN WORKING ORDER ALTHOUGH SHUT OFF VALVES ARE ALLOWED. DISCS MUST BE MADE OF A FERROUS MATERIAL. NO ABS SYSTEMS ALLOWED. ADJUSTABLE BIAS VALVES ARE ALLOWED.

### **WHEELS.**

MADE OF STEEL ONLY. 13" DIAMETER ONLY. MIN 6". MAX 8" WIDE.

### **TYRES.**

MAX WIDTH 10" AS MARKED ON THE TYRE. MUST DUROMETER AT A MIN OF 40 BEFORE THE START OF A RACE. THIS WILL BE RANDOMLY CHECKED AS THE CARS GO ONTO THE TRACK. ANY TYRE WHICH DUROS UNDER THIS WILL RESULT IN THE CAR BEING REFUSED TO RACE.

### **ENGINE SETBACK.**

THE SQUARE OF THE ENGINE (REAR OF THE REAR CYLINDER BLOCK) MAY NOT EXTEND REARWARD MORE THAN 17" FROM THE CENTRE OF THE TOP FRONT BALL JOINTS. NO POINT OF THE ENGINE OR TRANSMISSION MAY EXTEND MORE THAN 21" REARWARD OF THE SAME POINT.

## **EXHAUST.**

ALL CARS MUST BE FITTED WITH AN ADEQUATE EXHAUST SILENCER WHICH COMPLY WITH LEVELS AS MAY BE DETERMINED BY THE ORCi & LOCAL TRACK NOISE REGULATIONS. A STANDARD ROAD GOING MOTORCYCLE SILENCER IS THE BEST WAY TO MEET THESE REQUIREMENTS.

## **FUEL.**

STANDARD PUMP PETROL ONLY. OCTANE BOOSTER MAY BE USED.

## **COOLING.**

ENGINES MUST BE COOLED BY ORIGINAL INTENT. EXTRA FANS AND COOLERS MAY BE FITTED.

OIL PIPES MUST NOT RUN INTO THE DRIVERS COMPARTMENT. WHEN THE RADIATOR IS IN THE REAR OF THE CAR, THE WATER PIPES MUST NOT RUN THROUGH THE DRIVER AREA. UNLESS THEY ARE FULLY COVERED WITH ALUMINIUM THE MAJORITY OF THESE PIPES MUST BE MADE OF STEEL, ALUMINIUM OR RUBBER. NO PLASTIC PIPE OR INSERTS TO BE USED.

## **ENGINES**

FOUR CYLINDER, FOUR STROKE ONLY. MAXIMUM 1400CC. MUST HAVE FULL WORKING TRANSMISSION, CLUTCH, AND STARTER WITH ALL PARTS IN PLACE. CHARGING SYSTEMS OPTIONAL, ALTERNATOR MAY BE REMOVED AND BLANKED OFF. BATTERY POWERED IGNITION SYSTEM ONLY. NO AUXILIARY STARTERS, NO TURBOS. ALL CYLINDER HEAD COMPONENTS MUST REMAIN STOCK EXCEPT FOR CAM CHAIN SPROCKETS, WHICH MAY BE SLOTTED.

ALL MOVING PARTS MUST BE AS ORIGINAL EQUIPMENT MANUFACTURED. (OEM). AND MUST MEET SPECS AS PER MANUFACTURE. OEM STOCK IGNITION AND INJECTION SYSTEMS ONLY, POWER COMMANDERS OR FUEL MONITORING DEVICES ARE PERMITTED BUT MUST NOT INCLUDE ANY OTHER ADDITIONAL BOXES MODULES, OR DEVICES TO ALTER THE MOTOR FUNCTIONS. ANY CARBURETTOR MAY BE USED. AFTERMARKET AIR FILTERS MAY BE USED.

AIR (OIL) COOLED ENGINES ARE ALLOWED PORTING GRINDING AND POLISHING OF INTAKE AND EXHAUST PORTS. WATER COOLED ENGINES CAN ONLY HAVE PORTING UP TO 10MM INSIDE THE INLET PORT TO MATCH THE INTAKE BOOT. NO WORK IS ALLOWED ON THE EXHAUST PORT.

## **REAR AXLE**

BEAM AXLES ONLY. NO INDEPENDANT REAR SUSPENSION. THE DIFF MUST HAVE A SOLID SPOOL OR BE FULLY WELDED. NO UNLOCKED OR LIMITED SLIP REAR END WHATSOEVER. QUICK CHANGE REAR ENDS ARE ALLOWED BUT WITH STEEL AXLE TUBES ONLY.

COIL OVER SHOCKS ARE THE ONLY MEANS OF SUPPORTING THE CAR (1 PER CORNER). BIRD CAGE OR BEARING TYPE DEVICES MAY NOT BE USED TO LOCATE THE AXEL, MAX LENGTH OF REAR TRAILING ARMS IS 30". TORQUE ABSORBING DEVICES ARE PERMITTED. ANTI ROLL BARS ARE PERMITTED. NO DRIVER SHALL HAVE THE ABILITY TO ADJUST THE SUSPENSION FROM INSIDE THE CAR. ALL 4 SHOCKS MUST BE OF STEEL OR ALUMINIUM CONSTRUCTION AND ONLY HAVE A SINGLE ADJUSTER. NO EXTRA SHOCK RESERVOIR ALLOWED. NO DOUBLE ADJUSTERS

NO PART OF THE FRONT SUSPENSION SHALL EXTEND REAR OF THE FRONT FIRE WALL.

NO BEAM TYPE FRONT AXLES.

## **CHASSIS AND MAIN FRAME.**

ALL CHASSIS AND FRAME MEASUREMENTS ARE TO THE NEAREST METRIC OR IMPERIAL EQUIVILENT.

THE 2 MAIN CHASSIS MEMBERS WILL BE 50mm X 25mm X 2.5mm. MIN THICKNESS. THE MINIMUM LENGTH OF THESE RAILS WILL BE FROM THE FRONT LOWER SUSPENSION ARM CROSS MEMBER. TO THE REAR MAIN ROLLBAR UPRIGHT BEHIND THE DRIVER. THE FRAME FORWARD AND BEHIND THESE POINTS MAY BE 1.25" X2mm TUBE. THE MAIN CHASSIS WILL HAVE A MINIMUM OF 3 CROSSMEMBERS. ONE AT THE FRONT FIRE WALL, ONE BEHIND THE SEAT, AND ONE IN BETWEEN THEM. THESE SHALL BE MADE OF CHASSIS MATERIAL. CROSS BRACING IN THE FLOOR UNDER THE SEAT IS RECOMMENDED.

REAR CHASSIS WIDTH BETWEEN RAILS IS MIN 30" MAX 34". THE REAR ROLL BAR MUST FIT DIRECTLY ON TOP OF THESE RAILS OR THE REAR CROSS MEMBER.

FRONT CHASSIS WIDTH, [ENGINE AREA] MIN 20" MAX 24".

ROLL CAGE MUST BE MINIMUM 6 POSTS. 1.25" X2.5mm TUBE. CAGE MUST HAVE HORIZONTAL BARS WELDED AT WAIST HEIGHT (BOTTOM OF SCREEN HEIGHT) ALONG BOTH SIDES, [THESE MAY BE CURVED DOWNWARDS FOR BETTER ENTRY AND EXIT OF THE CAR] BEHIND THE SEAT AND UNDER THE SCREEN. MIN 25mmX2mm. TUBE

CLASSIC AND PICK UP STYLE BODIES WITH 2 DOORS MUST HAVE A MINIMUM OF 3 HORIZONTAL OR VERTICAL BARS IN EACH DOOR, MIN 25mm X 25mm X 2mm BOX. STOPS MUST BE WELDED ONTO THE INSIDE OF THE DOOR FRAMES TO STOP THE DOORS BEING PUSHED IN TOWARDS THE DRIVER IF A CAR DOES NOT HAVE DOORS OR A ROOF HATCH. THE DRIVER MUST BE ABLE TO ENTER AND EXIT THE CAR THROUGH BOTH SIDE WINDOW AREAS EASILY, WITH HIS HELMET AND RACING GEAR ON. HE WILL BE ASKED TO DO THIS AT THE TIME OF SCRUTINEERING.

NO DOWN TUBE CARS, ANY BARS GOING FROM THE FRONT OF THE CAGE TO THE FRONT OF THE CHASSIS MUST BE UNDERNEATH THE BODYWORK.

PICKUPS MAY HAVE 2 EXTERNAL BARS GOING FROM THE TOP REAR OF THE CAGE TO THE REAR CHASSIS.

### **NUMBERS AND GRAPHICS.**

NUMBERS MUST APPEAR ON BOTH SIDES OF THE CAR AND ON THE ROOF POINTING TOWARDS THE FENCE. THESE SHALL BE A MIN OF 12" X 2" STROKES. THE REAR PANEL MUST HAVE THE CARS NUMBER, MIN 12" HIGH, AND THE WORDS "UK MODIFIEDS" CLEARLY WRITTEN, THERE MUST BE AN ADDITIONAL NUMBER ON A PLATE MIN A5 PAPER SIZE BEHIND THE DRIVERS HEAD POINTING TO THE REAR OF THE CAR. THIS SHALL BE BLACK NUMBERS ON A WHITE BACKGROUND.

### **BODY TYPES**

#### **CLASSIC STYLE BODIES**

MUST LOOSELY RESEMBLE VINTAGE CARS OR PICKUPS FROM 1928 TO 1948 DRIVER MUST BE ABLE TO EXIT THROUGH BOTH SIDES, BODIES CAN BE CONSTRUCTED OF STEEL, ALUMINIUM, FIBREGLASS, OR A MIXTURE OF THE THREE. MIN HEIGHT 42", MAX 50", THESE BODIES SHALL BE OPEN WHEEL ONLY. (NO FENDERS ] NO AERODYNAMIC TYPE WINGS ANYWHERE ON THE CAR, POPULAR BODY STYLES CAN BE FOUND ON [WWW.DWARFCARRACING.COM](http://WWW.DWARFCARRACING.COM)

#### **DIRT MODIFIED BODIES**

I,M,C,A. OR DIRT MODIFIED BODIES SHALL BE KNOWN AS MOD LITES.

ROOF PANEL MAY HAVE NO MORE THAN 14 DEGREES OF ANGLE RAKE

REAR SHELF MAY HAVE NO MORE THAN 5 DEGREES OF ANGLE RAKE.

SIDE PODS IF FITTED NO MORE THAN 30 DEGREES OF ANGLE RAKE.

NO UPWARD FACING DEFLECTORS OF ANY TYPE ACROSS THE WIDTH OF THE CAR EXCEPT FOR THE REAR OF THE BONNET AREA WHERE IT JOINS THE BOTTOM OF THE FRONT SCREEN AREA. AND THE REAR OF THE REAR DECK LID WHERE IT JOINS THE REAR PANEL. NO AERODYNAMIC TYPE WINGS ANYWHERE ON THE CAR

ENTRY AND EXIT MUST BE THROUGH A HATCH IN THE ROOF. UNLESS THE DRIVER IS ABLE TO EXIT THROUGH BOTH SIDE WINDOW AREAS. IT IS ALSO RECOMMENDED THAT THE DRIVER BE ABLE TO EXIT THROUGH OTHER MEANS THAN JUST THE ROOF HATCH.. SEE DIAGRAM FOR MOD LITE BODY SPECS.

### **MODIFIED LITE**

#### **(a) OVERALL DIMENSIONS**

A. A. 42" min 50" max from ground - total car height.

B. B. 124" maximum total length, bumper to bumper.

#### **C. C. SIDES AND REAR QUARTER PANEL**

1. 1. 84" max - Door and rear quarter length.

D. D. 30" min 38" max - side height of rear quarter panel from the ground.

30" max height of quarter panel.

#### **E. E. HOOD [BONNET]**

1. 1. 20" min 27" max - hood height excluding breather protectors (bottom of frame rail to top of hood). Ram air induction system prohibited.

Rear of hood becomes part of windshield area rules. No part of nose section (in front of spindle centerline) may be wider than a maximum of 24". Hood may taper out to door panels at the rear.

#### **F. F. ROOF PANEL**

1. 1. 40" min 48" max - length of roof panel. 36" min 42" max – width of roof.

No part of roof panel may have more than 14° of angle rake.  
No deflector of any type on upper sides or rear of roof panel.

#### **G. G. REAR UPPER QUARTER PANEL**

1. 1. 20" min 38" max rear upper side panel may contain Plexiglas.

Side panels maybe no higher than 3" at the rear of the straight line of quarter panel top edge. Side panel may be no higher than an imaginary line from the rear edge of roof panel to 3" above the top edge of the rear quarter panel.

#### **H. SIDE WINDOW**

1. 1. 18" min side opening length. 10" minimum side opening height front and rear.

#### **I. INTERIOR**

1. 1. 46" min 50" max - width of rear shelf and body panels. Rear shelf may have no more than a 5° max rake and may not be concave or convex in design. No lips or spoilers of any kind. The rear frame area from the rear shelf downward a minimum of 16" must be completely enclosed the width of the frame. Louvers allowed, no holes.

#### **J. J. ADDITIONAL INTERIOR SPECIFICATIONS**

1. 1. 36" min 56" max - length of right side pod area with max 30°. both side pods may be altered for driver entry and exit.

2. 2. Rear quarter distance from center of rear 20" min 30" max.

4. 4. Deck lid height from ground 30" minimum, 36" maximum without the rear lip extending upward.

5. 5. Side pod may not extend rearward past the centerline of rear axle.

6. 6. Body must be centered on chassis.

7. 7. If windshield is used, it must be flat.

8. 8. All body dimensions will be teched + or - 1/2" unless otherwise specified

For enquiries about the spec or to ask technical questions please email Mickey Preston at [tech@ukmodifieds.co.uk](mailto:tech@ukmodifieds.co.uk)