



# WORLD OF MOTORSPORT ZA

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**2018**

## **1660 MODIFIED CLASS (SS) TAR**

The rule of what is not specifically allowed is not permitted, refer to WOMZA Tar Oval Committee/Technical Consultants for further clarity on the matter.

### **Introduction:**

**Competitor age restriction: Competitors may compete in this class from the Year in which they turn 16. Competitors with previous racing experience may enter this class from the Year that they turn 15 and will be subject to a Trial period of three events.**

### **SS 1.**

#### **Eligibility of vehicle and bodies:**

- 1.1 Any saloon, GT or Coupe type car or body replicated, semi or full space framed version may be used, with the exception of station wagons and panel vans which are prohibited;
- 1.2 LDV's bodies may be used, with the following limitation which will not be negotiated:
- 1.3 Any LDV body which can carry a maximum load of 650kg, it follows that the Golf Caddy being the maximum which can be used;
- 1.4 Front and rear wheel drive vehicles are permitted;
- 1.5 Bodywork must be centrally placed on the chassis, it may not be offset;
- 1.6 Any drive train, cooling, axle or brake component may be used provided the donor vehicle complies with the type of care or body;

### **SS 2.**

#### **Safety:**

- 2.1 All other items not noted under the class regulations, shall be adhered to under race regulations and technical & construction regulations;
- 2.2 Non contract Racing Class;
- 2.3 Ensure that all joints in construction are welded properly;
- 2.4 Sump, gearbox and differential plugs are to be wired securely;
- 2.5 Dual springs on throttles to be fitted, thus preventing throttle jams;

### **SS 3.**

#### **General Racing Modifications**

- 3.1 The following listed modifications shall be accepted as racing modifications in the class:
- 3.2 The following items are permitted:
- 3.3 Flywheels may be lightened and cast flywheels may be replaced with steel or Aluminum fly wheels, no flex plates;
- 3.4 No Flex plates permitted
- 3.5 **The following items are free:**
- 3.5.1 Pulley sizes;
- 3.5.2 Pistons and piston rings (no race forged pistons allowed)
- 3.5.3 Connecting rods from various models road going cars are permitted. Balancing will be permitted for that purpose only;
- 3.5.4 Crankshafts; from various models road going cars are permitted
- 3.5.5 Compression ratios;
- 3.5.6 Bore and stroke ratios;

3.5.7	Valve and tappet covers are free with the condition that the cover does not form part of the valve train;
3.5.8	Sumps are free in respect of volume and design;
3.5.9	Fuel pumps are free with regards of operation and capacity;
3.5.10	Camshaft profiles are free as long as the number of lobes and their location are not altered;
3.5.11	Flexible engine mountings may be made solid;
3.5.12	Fuel pressure regulators;
3.5.13	Dellorto and Weber carburetors parts may be interchanged;
3.5.14	Induction and ram tubes;
3.5.15	The method of camshaft drive may not change;
3.5.16	Pressure plates and clutches are free;
3.5.17	Dry sump systems are not permitted.
<b>SS 3.6</b>	<b><u>Ignition/Engine Management</u></b>
3.6.1	Any Standard distributor may be used;
3.6.2	A Standard electronic ignition may be fitted;
3.6.3	Any local management system may be used for fuel and ignition management (Dicktator, Spitronic, Mr Turbo, Gotech etc);
3.6.4	A MSD Spark Booster may be fitted to engines using carburetors and distributor type ignitions.
<b>SS 3.7</b>	<b>The following items in particular are permitted:</b>
3.7.1	Electronic Water Pumps ARE permitted;
3.7.2	Roller rockers ARE permitted.
<b>SS 4.</b>	<b><u>Roll Cage</u></b>
4.1	Refer to T & C Regulations;
<b>SS 5.</b>	<b><u>Bumpers:</u></b>
5.1	No external <b>steel</b> bumpers permitted refer to internal bumper regulation;
5.2	Internal bumper construction refer Technical and Construction regulations;
5.3	No piping to protrude outside of bodywork.
<b>SS 6.</b>	<b><u>Brakes:</u></b>
6.1	Restricted to 4,2 and single pot brake calipers from road going vehicles only.
6.2	Master cylinders are free;
6.3	Aftermarket pedal boxes may be used.
<b>SS 7.</b>	<b><u>Car Construction:</u></b>
7.1	Refer to the T & C Regulations;
7.2	No engine off set is allowed.
<b>SS 8.</b>	<b><u>Dimension and Weights:</u></b>
8.1	Weight of the car including competitor shall be a minimum of 800kg weighed pre, during or post event with no tolerance permitted;
8.2	Wheelbase of the vehicle must be within 50mm of the original manufacturers prescribed specifications; and
8.3	All four wheels of the vehicle must fit within the body of the vehicle, which determines the maximum dimensions;
8.4	Maximum length and width of the vehicle shall include the wing.
8.5	Maximum length of the vehicle is 5000mm;

<b>8.6</b>	Maximum width of the vehicle is 2000mm.
<b>SS 9.</b>	<b><u>Engine:</u></b>
<b>9.1</b>	The use of an engine originating from another model manufactured by the same manufacturer or the use of an engine from another manufacturer shall be permitted, provided that such engine complies with the criteria set out;
<b>9.2</b>	Engines utilized, will only be permitted, if the vehicle originated from South Africa;
<b>9.3</b>	No multi-valve engines – engines shall be restricted to 8 Valve;
<b>9.4</b>	Any 3 or 4 cylinder 4 stroke piston with 2 valves per cylinder.
<b>9.5</b>	Maximum 1660cc;
<b>9.6</b>	No turbo or super charging allowed, (forced induction);
<b>9.7</b>	Fuel injection systems are permitted;
<b>9.7.1</b>	Fuel injection may be used with a local management system. The Throttle Body may not exceed 70mm. Injectors are free.
<b>9.7.2</b>	The Plenum design is free.
<b>9.8</b>	Side Draft Carburetors may NOT exceed 40mm;
<b>9.8.1</b>	Choke tubes sizes <b>free</b>
<b>9.9</b>	Cylinder head from other models may be used.
<b>9.10</b>	A modification to the engine is free, unless stated elsewhere in the regulations.
<b>SS 10.</b>	<b><u>Engine positioning: - Rear wheel drive</u></b>
<b>10.1</b>	The rear face of the engine is where the bell housing and the engine meet will not be more than 600mm back of Centre line of the front wheels;
<b>SS 11.</b>	<b><u>Exhausts:</u></b>
<b>11.1</b>	All piping shall be secured with saddles, preventing exhaust pipes from coming free in the event of it breaking off;
<b>11.2</b>	Exhaust tail pipes passing out the side of the vehicle may only do so at a maximum height of 450mm and be level or downward facing, measured from the top of the pipe to the ground;
<b>11.3</b>	Branches are permitted.
<b>SS 12.</b>	<b><u>Fuel</u></b>
<b>12.1</b>	Methanol, Avgas, racing and pump fuel allowed, without enhancements;
<b>12.2</b>	Methanol lubricants may be used such as Castrol R40 or Castor Oil;
<b>12.3</b>	It is highly recommended that Methanol using vehicles do have fire extinguishers fitted to the competitor compartment, with all safety measures taken when fitting extinguishers, preventing the dislodging in an event of impact;
<b>SS 13.</b>	<b><u>Steering and Suspension:</u></b>
<b>13.1</b>	Only commercially available steering racks and steering boxes or quick ratio versions thereof as fitted to vehicles;
<b>13.2</b>	Suspension design is free but limited to either commercially available suspension uprights as fitted to vehicles described in item 13.1 above or locally fabricated components;
<b>13.3</b>	Adjustable spring platforms may be fitted;
<b>13.4</b>	Competition springs are permitted;
<b>13.5</b>	The use of rose type joints are permitted;
<b>13.6</b>	Only South African made Gabriel, Armstrong or Monroe shock absorbers may be used;
<b>13.7</b>	The total limit permitted is 4, with one per corner;
<b>13.8</b>	No remote shock absorber reservoirs may be used;

<p><b>13.9</b> Power steering is permitted;</p> <p><b>13.10</b> Suspension may be designed with an offset;</p> <p><b>13.11</b> A maximum of 5 links may be used on the rear suspension;</p> <p><b>13.12</b> Wish bone type suspensions are allowed on space frames or semi space frames.</p> <p><b>13.13</b> Front Wheel Drive Spaceframe cars may only use a beam rear axle.</p>	
<p><b>SS 14.</b> <b><u>Transmission:</u></b></p> <p><b>14.1</b> Only local differentials and gearboxes shall be permitted;</p> <p><b>14.2</b> No straight cut boxes permitted;</p> <p><b>14.3</b> Gear ratios are free;</p> <p><b>14.4</b> Only lock differentials permitted;</p> <p><b>14.5</b> Limited slip differentials not permitted;</p>	
<p><b>SS 15.</b> <b><u>Wheels and Tyres</u></b></p> <p><b>15.1</b> Tyres Restricted to Locally Manufactured Tyres and Imported Road Going Tyres, with a value of less than R1 500.00 excluding VAT, that are commercially <b>available</b> from Commercial Fitment Centers the following size limitations – max width 205mm, 13,14 or 15 inch apply</p> <p><b>15.2</b> Each competitor is limited to 6 tyres per National Championship Series;</p> <p><b>15.3</b> This tyre limitation is restricted to the participation in the Heats and Final only and not for practice runs</p> <p><b>15.4</b> Damaged tyres may be replaced at the sole discretion of the senior scrutineer at championship events with used tyres only;</p> <p><b>15.5</b> Each competitor is responsible to ensure that the tyres are adequately marked;</p> <p><b>15.6</b> No Slick or semi slick tyres or compound altering chemicals are permitted. Skimming of tyres is strictly prohibited;</p> <p><b>15.7</b> Tyres worn to an extent where 50% of the tread pattern is no longer visible are not permitted;</p> <p><b>15.8</b> Tyres showing any degree of “canvass” or structural damage may not be used.</p>	
<p><b>SS 16.</b> <b><u>Wings:</u></b></p> <p><b>16.1</b> Wings are optional</p> <p><b>16.2</b> Wing designs, positioning and sizes are free with the following restrictions</p> <p><b>16.2.1</b> Wing may not protrude beyond side of vehicle</p> <p><b>16.2.2</b> Wing endplates may not exceed 500x500mm and may be offset to each other</p>	