TECHNICAL AND SPORTING REGULATIONS

Slovakian MX-5 Cup / Young Timer MX-5 Class of the Histo Cup

1. Introduction

Only Mazda MX-5 model NA with Mazda 1.6 litre B6-ZE (85 kW) can participate in the Slovakian MX-5 Cup and in the Young Timer MX-5 Class of the Histo Cup.

Vehicles and vehicle parts of the special or limited edition are not allowed. All vehicles must be in good technical condition. Vehicles must be without a roof – it is not allowed to have a hard top or a soft top.

These technical regulations apply to all competitors participating in the Slovakian MX-5 Cup and in the Young Timer MX-5 Class of the Histo Cup. Mazda MX-5 vehicles must remain in original condition, except of the following restrictions or special additions. No modifications to the vehicle are permitted other than those specifically stated or permitted by these regulations. These regulations are supplementing the valid Histo Cup regulations and they are mandatory.

2. Technical inspections

2.1. Initial technical inspection / Engine performance check

To participate in the Slovakian MX-5 Cup and in the Young Timer MX-5 Class of the Histo Cup, each vehicle must pass an initial technical inspection. Each vehicle has to undergo an engine performance check on the dynamometer and the required parts of the vehicle must be sealed. Dynamometer MAHA MSR500 is used for the measurement. Maximum measured power / torque without BoP ballast must not exceed 127 PS / 145 Nm.

The technical inspection takes place at:

MM Racing s.r.o.

Pri Starom letisku 1 831 07 Bratislava Slovakia

Tel: +421 905 611 421

Before the dynamometer test, the vehicle must meet the following requirements:

- ✓ <u>Tires ZESTINO 195/50R15 SOFT</u>
- ✓ Tire pressure 2 bar
- ✓ Rear axle camber between -2 ° and -2.5 °
- ✓ Ignition timing max. 14° at 850 rev / min
- ✓ Fuel pressure between 2,2 and 2,7 bar at 850 rev / min
- ✓ Maximum pump pressure between 4,6 and 6 bar
- √ 100 octane unleaded petrol

If the vehicle complies with the regulations after a performance check, the following parts must be sealed:

- Valve cover
- Oil pan
- Air mass meter
- Engine control unit
- Ignition distributor

The cost of this inspection is paid by the participant. Failure to do so may result in a 200 € fine or a loss of 15 points. The seals must remain intact throughout the season. If the seal is missing or is damaged, the driver must notify the organizer of the technical inspection. Subsequently, a new seal will be assigned and, if necessary, additional check on the dynamometer may be performed.

2.1.1. Procedures in case measured power / torque exceeds 127 PS / 145 Nm

The vehicle will be compensated with a Ballance of Perfomance (BoP) ballast of 7.5 kg per PS or its percentage and 6.5 kg per Nm or its percentage. The minimum weight + BoP ballast must be maintained during all races. The maximum allowed power / torque for using a BoP ballast is **130 PS** and **147 Nm**. Above this power / torque, the engine is not considered legal. The BoP ballast must be placed on the floor in front of the passenger seat according to **FIA Appendix J. Article 257A – 4.3.** (see picture 1.).

2.2. Scrutineering at the event

The inspection of the mandatory safety equipment of drivers and vehicles will be carried out by the Histo Cup / AMF technical steward, who will carry out this inspection as part of the scrutineering before the first qualifying of the weekend. The driver is required to present a valid, correctly filled and stamped sports car license issued by the relevant national sporting authority ASN.

2.2.1. Mandatory safety equipment

The vehicle must be equipped with the following safety features:

- ✓ Multi-point safety roll cage from the supplier <u>STEELDESIGN</u>
- ✓ Fire extinguisher with a minimum capacity of 2 kg.
- ✓ Racing seat with valid FIA homologation
- √ 6-point seat belts with valid FIA homologation
- ✓ Master battery cutoff switch
- ✓ Towing straps front and rear
- ✓ Additional rear rain light
- ✓ Protective net above the head and left door according to FIA Appendix J, Article 253 11 or protective hand straps
- ✓ Protective padding of the safety roll cage according to FIA Appendix J, Article 253 8.3

2.3. Post-race technical inspection

At the start of each event, a technical steward will be drawn among the participants of the Slovakian MX-5 Cup.

The selected technical steward will be responsible for:

- Marking of tires on each vehicle after the first qualifying of the event,
- Technical inspections of selected vehicles,
- Overall compliance with technical regulations.

After each race, drivers must park their vehicles in the paddock and mark them with a "parc fermé" sign. The technical steward will then select 3 vehicles for the technical inspection. The mechanics will be allowed to work on their cars as soon as the technical inspections are finished and the "parc fermé" state ends.

Technical steward has the right to verify:

- Vehicle weight with the driver in the vehicle (in cooperation with the Histo Cup / AMF stewards),
- o Original copy of the engine performance measurement record isued by MM Racing s.r.o.,
- o Charging indicator light while ignition is on,
- Seals on all parts which are subject to sealing,
- Intake system and prescribed air filter K&N type 33-2034.
- Prescribed spark plugs NGK type BKR6E/11,
- Ignition timing max. 14° at 850 rev / min,
- Ride hight at least 100 mm measured from the lower edge of the sills with the driver in the car.
- o Brake system and shock absorbers,
- Tires and their markings,
- o The original safety door reinforcement.

The technical steward has the right to detain the vehicle and ask the competitor to transport the car to another place chosen by the technical steward for the purpose of deep inspection. The competitor will be notified of the time, date and place of the deep technical inspection. Disassembly of the engine or other required parts must be performed by the competitor or mechanic designated by the competitor under the supervision of the technical steward. The technical steward has the right to request a re-measurement of the engine performance using the MAHA MSR500 dynamometer.

2.3.1. Penalties

Drivers are responsible for ensuring that their vehicle complies with the valid technical regulations at each race in which they participate. Failure to comply with any of these conditions will be considered a violation of these regulations and the driver may face disqualification and / or loss of points.

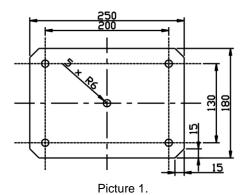
3. Dimensions and weights

3.1. Dimensions

Dimensions of the vehicle must comply with the vehicle registration documents, or in accordance with the homologation document for the vehicle type.

3.2. Weight

Minimum weight is **960 kg**. The weight is measured with driver and with liquids. The use of the additional ballast is approved in accordance with **FIA Appendix J, Article 257A – 4.3.** The additional ballast must be sealed and must be placed on the floor in front of the passenger seat (see picture 1.).



4. Engine

Mazda 1.6 litre B6-ZE (85 kW) original combustion engine can be used with a maximum power of **127 PS** and maximum tourqe of **145 Nm**. The vehicle will be compensated with a Ballance of Perfomance (BoP) ballast of 7.5 kg per PS or its percentage and 6.5 kg per Nm or its percentage when the engine exceeds 127 PS and 145 Nm tourqe. The minimum weight + BoP ballast must be maintained during all races. The maximum power / torque for using a BoP ballast is **130 PS** and **147 Nm**. Above this power / torque, the engine is not considered legal. The BoP ballast must be placed on the floor in front of the passenger seat according to **FIA Appendix J, Article 257A – 4.3.** (see picture **1.**)

4.1. Cylinder head

Maximum cylinder head reduction is 0.635 mm from 134 mm standard. The maximum compression at the engine operating temperature is 14.0 bar. Camshaft and their gears must remain original. It is allowed to dismount the engine ventilation hose and replace it with filter for ventilation (see picture 2.).



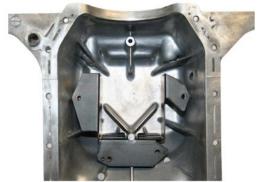
Picture 2.

4.2. Engine block

The flywheel must remain original (no adjustment). The crankshaft must remain original – lightening and balancing is forbidden. The standard reconditioning is allowed according to the Mazda Service Manual.

4.3. Oil pan

Additional assembly of oil casting is recommended – I.L. Motorsport item number NAB-5169 (see picture 3.).



Picture 3. (by I.L. Motorsport)

4.4. Exhaust

Exhausts only from the Manufacturer <u>A.M.A Exhaust System</u> must be used. Exhaust manifold can be wrapped with thermal insulation.

4.5. Air intake system

Air filter cover (AirBox) along with the inlet hose must remain original. Replacement **Air filter K&N type 33-2034** is prescribed. Heat insulation sticker/foil can be used on the airbox, inlet hose into the airbox and suction pipe. It is allowed to exchange the left headlight cover with a cover with inlet – **I.L. Motorsport item number NA0-0051** or **NA0-0052**.

4.6. Watter cooling

The original engine radiator can be replaced with an optional all aluminium performance radiator - recomended I.L. **Motorsport item number NA0-5051**. The thermostat can be removed. It is allowed to cover the hole between the bumper and the upper edge of the radiator for better direction of air into the radiator. It is allowed to replace the original fan with and optional electrical fan. It is recommended to install the **RE-ROUTE KIT for the cooling circuit – I.L. Motorsport item number NA1-9050**. Water rubber hoses can be replaced with silicone hoses.

4.7. Oil cooling

It is recommended to install the oil cooling which includes the Sandwich under oil filter type MOCAL and oil cooler Max 16 rib.

4.8. Fuel system

The fuel system must remain original. For the purpose of control measurements of the fuel pressure, the **T-connector and the VW measuring valve 06D 133 400 and cover 06F 133 335A** must be installed (see picture 4 and 5.). Fuel hoses and pipes can be replaced with rubber hoses with nylon or armor casing. Fuel hoses must not be led through the interior. It is not allowed to use petrol with octane rating higher than **100 octane**. Evap canister can be removed.



Picture 4.



Picture 5.

4.9. Ignition

Spark plugs type **NGK BKR6E / 11** are mandatory. Ignition cables are optional and ignition timing **max. 14° at 850 rev / min is allowed.**

4.10. Engine Control Unit (ECU)

The engine control unit (ECU) must remain original. The ECU can be moved to the cockpit under the dashboard of the passenger side.

Important: Any breach of the seal on the ECU or modification of the electronics can be penalized with the loss of all points.

4.11. Battery

The battery and the electric starter are mandatory and must withstand at least three repeated starts. The battery of any manufacturer must have a capacity of 41Ah / 360A – wet type. The battery must be placed in its original position and the battery must be securely fastened. The battery contacts must be covered with insulating material.

4.12. Alternator

Fully functional and connected standard alternator must be installed.

4.13. Master battery cutoff switch

Is mandatory according to the FIA Apendix J - Article 253 - 13.

5. Lighting

The rear lights must remain in the original place. The brake lights and the sidelights must be functional. The front sidelights can be removed and replaced with a cover which must be securely attached and placed in the same position as the original light. The headlights can be removed but the original headlight covers must be retained, securely attached and in line with the body. It is allowed to exchange the left headlight cover with a cover with inlet – I.L. Motorsport item number NA0-0051 or NA0-0052. It is mandatory to install an additional LED rainlight. The rainlight must be operated by a separate switch on the instrument panel and must be functional even when the main battery is switched off. The rainlight must be installed in the space of the rear number plate (see picture 6.).



Picture 6.

6. Drivetrain

6.1. Clutch

The type of clutch plate and pressure plate are optional but dimesions must remain original. The flywheel must remain original.

6.2. Gearbox

Original 5 speed manual transmission. It is allowed to use the I.L. Motorsport MX-5 Short Shift Kit - NA0-7000.

6.3. Differential

It is allowed to use the original open differential model NA 1.6 or the limited slip differential - **3J driveline**. Gear ratios: (4,3:1), (4,1:1), (3,6:1). It is highly recommended to install differential cooling.

7. Chassis and Suspension

7.1. Shock absorbers

GAZ GOLD Professional shock absorbers with overall length 2,25" are prescribed. Specification:

Front Springs Rear Springs Length: 8" Length: 7"

Spring force: 500Lb/in Spring force: 300Lb/in

The upper shock absorber mounts can be replaced with polyurethane mounts (any manufacturer).

7.2. Alignment and axels

The front camber must not exceed -3°. Chassis silent blocks can be original rubber or can be replaced with polyurethane bushes (any brand).

The anti-roll bars must remain original and must stay connected. The suspension must remain original except of the shock absorbers. Extension pads or additional struts to strengthen the body are not allowed. The reinforcing frame from the Model 92 must be removed.

7.3. Steering

Steering and steering transmission must remain original. The power steering can be removed. The steering wheel locking system must be removed. The steering wheel is optional. If a quick release steering wheel is used, it must comply with the **FIA Appendix J, Article 255 – 5.7.3.9.**

7.4. Tires

ZESTINO 195 / 50 R15 Soft tires are prescribed. Every driver can only use one set of tires for the whole racing weekend (Qualifying and Race). In case of a puncture or extensive damage it is allowed to ask for tire change. Cutting, grooving or any other design change of the tire is not permitted. All production data must be clearly visible. Grinding the sidewalls of the tires to remove data is prohibited.

7.5. Rims

JAPAN racing model JR11 (dimensions 7Jx15ET30) are prescribed.

8. Brake system

The dual circuit system must be maintained. Rubber brake hoses must be replaced with Teflon-armored with diameter D03. The brake pipes can also be replaced by armored hoses with a diameter of D03. It is permitted to replace the original brake force regulator with a lever or rotary one. Anti-lock braking system (ABS) has to be removed.

8.1. Brake pads

Brake pads compound is optional. Dimensions of the brake pads must remain original.

8.2. Brake calipers

Brake calipers must remain original.

8.3. Brake discs

Any manufacturer. Dimensions of the brake discs must remain original – Front 235 x 18 mm and rear 231 x 9 mm.

8.4. Parking brake

Is mandatory.

9. Cockpit

No modifications other than the installation of mandatory safety equipment or other permitted interior modifications are permitted. Doors must have working opening mechanism. The door paneling is mandatory and it is allowed to use the original paneling or it can be replaced by aluminum, plastic or carbon material. The side windows must be removed. The door reinforcement must be retained. The dashboard must not be modified except of the cut-outs for the safety frame. Installation of additional measuring instruments is permitted. The airbags must be removed.

9.1. Safety roll cage

The safety roll cage from the supplier <u>STEELDESIGN</u> is prescribed. According to drawing No. MX5 00-1 and manufacturer's certificate.

9.2. Onboard cameras

Mounting of onboard camera according to FIA Appendix J, Article 253 – 2.

9.3. Seats

Racing seat with valid homologation (FIA 8855-1999 or 8862-2009) is mandatory. Mounting according to **FIA Appendix J, Article 253 – 16.** The co-driver seat must be removed.

9.4. Seat belts

Six point safety seat belts with valid homologation are mandatory. Mounting according to **FIA Appendix J, Article 253 – 6.**

9.5. Safety net

Safety net above head and on the left side of the driver position or arm straps are mandatory according to FIA Appendix J, Article 253 – 11.

9.6. Fire extinguisher

It is mandatory to install a fire extinguisher according to FIA Appendix J, Article 253 - 7.3.

9.7. Air conditioning and heating system

The air conditioning, heating system, heating fan and heating control can be removed.

10. Bodywork

The bodyworkd must not be welded or reinforced in any way. The bodywork originally supplied may not be replaced without the prior permission of the technical steward. Bodywork parts must remain unchanged. The antenna, side indicators from the front fender and emblems can be removed and blinded. Modification of the central tunnel and the driver's side floor is permitted for the purpose of fitting a sports seat. This adjustment is performed by the company Steeldesign.

10.1. Spoiler

Installation of a front spoiler from the "R" series or its replacement from I.L. Motorsport Nr. NA0-0620 is permitted.

10.2. Rear view mirrors

Can be replaced. (Both mirrors must be the same type).

10.3. Fuel tank cap lock

Can be removed.

10.4. Fenders

Must remain original. Plastic wheel arches can be removed.

10.5. Bumpers

The front and rear bumpers must remain original. The bumper reinforcement must remain original.

10.6. Bonnet locks

The original front and rear bonnet locks must be removed and replaced with HOOD PINS.

10.7. Wipers

The wipers must be functional. The passenger wiper can be removed. The windshield washer system can be removed.

10.8. Windows

The windshield must be original. The side triangular windows can be replaced with 4 mm transparent polycarbonate windows.

10.9 Doors

The door opening must be functional. The door trim according to **FIA Appendix J, Article 254 – 6.7.2.3.b.** The original safety door reinforcement must be retained.

10.10. Ride hight of the vehicle

It must be at least 100mm measured from the lower edge of the sills with the driver in the car.

10.11. Towing straps

Front and rear according to FIA Appendix J, Article 253 – 10.

11. Starting numbers and advertising

Starting numbers are determined by the Histo Cup organizers. Each vehicle must have MX-5 Cup advertising sticker placed on the windscreen, front bumper and rear fenders. Advertising of sponsors is permitted.

12. Results and point system of the Slovakian MX-5 Cup

12.1. Results in Slovakian MX-5 Cup

Standings after each race is based on the official results of the Histo Cup. Two worst race results of the season will be deleted for every driver. The driver with the highest amount of points after the last race of the season will be crowned as the Slovakian MX-5 Cup overall winner.

12.2. Point system in Slovakian MX-5 Cup

With 4 or more competitors:		With 3 or less competitors:	
Position	Points	Position	Points
1. 2. 3. 4. 5. 6. 7. 8. 9.	25 18 15 12 10 8 6 4 2	1. 2. 3.	12,5 9 7,5

13. Results and point system in the Young Timer MX-5 Class of the Histo Cup

According to the valid Histo Cup Regulations.