

# MOPFEST

*ENDURANCE RACE*

## Regulations

Mopfest Endurance race

The 4 hours of Veldhoven



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## **1. General provisions**

The organization reserves the right to make changes to the technical regulations with respect to safety during the run-up to and during the event.

All participating mopeds must meet the requirements as stated in these technical regulations, unless otherwise stated in the specific regulations of the class. Each team may only offer and use 1 moped for inspection. Only in case of on-site irreparable damage (only to the frame), which takes place before the start of the endurance race, a replacement bike part can be offered for inspection and used. The inspection sticker must be removed from the first frame and it may no longer be used during the event. The decision will be made by the Chief Technical Officials at the event.

The use of "on board "and/or helmet cameras is strictly prohibited unless dispensation is requested from organization for the use of an on board, the Chief Technical Officials must check the assembly for safety in parc fermé.

### **1.1 Technical inspection, parc fermé and follow-up inspection**

- Each rider is responsible to present the motorcycle, helmet(s) and clothing at the Technical Inspection before the first official practice session. These must be in a good condition and clean. The motorcycle must comply with the applicable technical rules throughout the event, this is the responsibility of the teams.
- During the event, in case of any doubt about the regulatory correctness, during the event, post-checking and/or in case of protest against the motorcycle or engine block, inspection may be ordered. The rider must cooperate with this.
- From the moment mopeds are presented for inspection, they must stay at Parc Ferme. These may not move during the day other than on the circuit and Parc ferme.
- Immediately upon completion of qualifying practice(s) and race(s), all Mopeds must be placed in the Parc fermé. One person must stay with the motorcycle. Failure to do so may result in disqualification.
- Post-Check: Mopeds may undergo a technical check after a training and/or competition. This must be carried out as soon as possible and, in the case of an extensive check, within 15 minutes of the end of the training and/or race in question. The rider and/or mechanics are obliged to give their active cooperation to this.

- If designated, the competitor should ensure that his motorcycle is brought directly to the T.C. For all classes, these are always the first three and also the motorcycles designated by officials with a total maximum of 5 mopeds. All designated motorcycles may be checked for noise, and engine technical points described in these regulations.
- One mechanic and one rider per moped may be present at the final inspection. Also, in addition to the technical officials, the race director will have access to the post-check.
- During the race, refueling must be done inside the Parc fermé on an environmental mat brought by yourself. Refueling may be done by 1 team member and 1 mechanic without the rider being on the moped.
- During the race day, technical defects may only be fixed in Parc fermé. The whole team is allowed to work on the moped.
- Mopeds designated to undergo a post-check should be placed back in the parc fermé after the check and remain in the parc fermé until the race director will release these mopeds.

## **2. General Technical Regulations**

### **2.1 Clothing**

- Integral helmet mandatory including European approval in proper condition. In doing so, there must be no fall damage on the helmet. This must be present per rider.
- Leather motorcycle suit is mandatory and must be sound (no holes etc.). Suit may consist of 1 or 2 parts. For a 2-piece suit, the two parts must be zipped together.

### **2.2 Secure**

All oil fill and drain plugs, oil lines, oil filters, oil channel seals and filter covers shall be secured against loosening by means of locking wire. With locking thread.

### **2.3 Fluid collection reservoir**

A transparent fluid collection reservoir must be present, working and securely mounted on each bicycle body. The reservoir should:

- Have a collection capacity of at least 250 ml
- To be lockable
- To be transparent
- Having no possibility for free flow of liquids
- There should be connections for at least: crankcase venting, carburetor overflow.
- To be emptied before each training/ competition.

### **2.4 Tank cap**

Tank cap should be sealing and mounted with an o ring or rubber seal so that it cannot leak. A tank vent is allowed. However, this must be connected to the liquid collection reservoir.

### **2.5 Kill switch**

In all classes an emergency stop (kill switch) device must be installed on the left handlebar half with wrist strap. If a fork unit is used, it must be mounted so that removal of the fork is smooth. Kill switch must function at all times. If it does not function when checked, a time penalty of 5 minutes will follow.

## 2.6 Handlebar halves/ Control levers/ Footrests

- Minimum handlebar width is 45 cm.
- Open handlebar ends should be sealed with solid material.
- Minimum steering angle is 15 degrees to either side.
- Of control levers, the ends should be spherical (min. 19 mm.) or flattened to at least 14 mm.
- Footrests should be rigid or folding, if folding they should have a mechanism so that they always return to the original position. All footrests should have a plastic end/ prop.

## 2.7 Noise requirements

98 dB(A) 6000 - 7000 rpm Measured with the microphone of the sound meter at a distance of 50 cm from the end of an exhaust pipe, at an angle of 45 degrees on the longitudinal centerline of the muffler and at the same angle upwards. Moped should be placed on a stand so that the rear wheel can run freely.

## 2.8 Tires

Tires must be approved for highway use and must have a tread depth of at least 1.5 mm at the start of practice and racing. Tires marked "not for highway use" are not allowed, with the exception of the Bridgestone BT 39 SS. This excludes the use of complete slick tires.

## 2.9 Tire warmers

The use of tire warmers is not permitted

## 2.10 Sharp protruding parts

On mopeds, there should be no sharp protruding parts. These should be covered. This should include:

- A gear guard to be placed at the block
- A hand catcher for the rear sprocket

## 2.11 Start numbers

### **Puchshop cup 50cc Automatic Class**

Background Red (RAL 3020)

Numbers White (RAL 9010)

### **Puchshop cup 70cc Automatic Class**

Background Yellow (RAL 1003)

Numbers Black (RAL 9005)

### **Endurance Legends**

Background Green (RAL 6018)

Numbers White (RAL 9010)

### **Tomos to 70cc Automatic class**

Background Black (RAL 9005)

Numbers White (RAL 9010)

A machine must have at least 1 starting number on the front of the motorcycle. (A second and/or third number on the seat unit or fairing is optional). Minimum dimensions of the number:

Min. height	100 mm.
Min. Width	45 mm
Min digit thickness	15 mm.
Free space between figures	20 mm.

### **2.12 Transponders**

During the event, it is mandatory to use a transponder provided by the event. These will be issued on race day. Mounting instructions will be handed out together with the transponder. This must be mounted in the correct way before the moped is submitted for inspection.

### **3. Additional provisions during event**

During the event, safety must be ensured and a sporting attitude must be observed. A number of rules have been drawn up for this purpose with appropriate time penalties if these rules are violated.

#### **3.1 Inspection**

As previously stated, the moped may not leave the Parc Fermé after it is submitted for scrutineering. A place will be designated where the moped will be parked during the event and where refueling and driver change can take place. When breaking the Parc Fermé rule, immediate disqualification will follow.

Each team is assigned a spot where there:

- A tool cart with only tools, duct tape, WD40, brake cleaner and 2 cloths may be present
- 5 liters of fuel per refueling
- 1 mechanic
- 1 rider for rider change



During the inspection, a marking is made on engine block and cylinder. This marking must be kept visible throughout the day. Therefore, this means that:

- No sump changes are allowed during the event
- No change of cylinder is allowed during the event

Thus, the intention is to drive the same engine block throughout the day. If this rule is violated, a 60-minute time penalty will follow.

### **3.2 Parc Fermé Refueling**

Refueling during the event is allowed only at Parc Fermé. The following rules must be observed:

- Refueling is only allowed from a jerry can of maximum 5 liters. No other filling agents or quick-fill tank installations are permitted here.
- Refueling should take place at least 1x per hour. This will be supervised by the TC.
- While refueling, no rider should be on the moped and the kill switch should be off the moped. Thus, moped should be off during refueling.
- Refueling may be done by only 1 person, with the rider allowed to keep a funnel in the moped.

Breaking 1 of these rules will result in a time penalty of 5 minutes per violation.

### **3.3 Rider change**

Driver changes will take place at Parc Fermé. The following rules must be observed:

- There should be at least 1 rider change per hour
- All registered riders of 1 team must ride for at least one hour, unless an exception is made by the race committee due to injuries from a crash, for example.
- When refueling during the driver change, the change may take place during refueling.

If a rider is changed late, this will incur a 10-minute time penalty. When not all registered riders have ridden for at least an hour, disqualification will follow.

### **3.4 Tinkering**

All the key work during the day will be done at Parc Fermé. Herewith:

- May all team members tinker with the moped at the same time
- When tinkering the moped should be off

- This requires the moped to be on a paddock stand, or held by 1 rider
- There should be tinkering on the environmental mat at all times

Breaking 1 of these rules will result in a time penalty of 5 minutes per violation.

### **3.5 Pitlane**

A speed limit of 15 kilometers per hour applies in the pitlane and Parc Fermé. If this speed is violated, a 5 - m i n u t e time penalty will apply.

### **3.6 Time penalties to be redeemed**

All time penalties incurred during the event will be redeemed after the finish flag. In doing so, the average lap time over the entire race will be considered for the time penalty and the number of laps will be deducted to the value of the penalty, with the number of laps rounded up.

Calculation example:

- Accrued time penalty :5 minutes for late refueling
- Average lap time 1.5 m
- Number of rounds deduction:  $5 \text{ min} / 1.5\text{m} = 4 \text{ rounds deduction}$

### **3.7 Winner by class**

The winner per class will be determined by the most number of race laps driven. This will be tracked and determined by the race director. Interim standings per class are available in Parc Fermé.

## 4. Technical Regulations Puchshop cup 50cc Automatic Class

### 4.1 General

Participating riders and mopeds must, in addition to these supplementary rules, comply with the general provisions the general technical regulations. This may not be deviated from in any way.

### 4.2 Allowed versions

Participation in this class is possible only for Puch mopeds as homologated for the market and originally intended for an E50 engine including front and rear suspension. These include type: Maxi, Maxi-S, X-30, Z-one, magnum(x) and so on. Frame construction is otherwise completely free, as long as it is based on and built from the aforementioned homologated e50 frames. Rims should have a minimum diameter of 16 inches and a maximum of 17 inches.

### 4.3 Engine Block

Engine block must be homologated E50 in all classes; i.e. 1-speed automatic transmission with centrifugal clutch and chain drive to the rear wheel. Here it is also permitted to use the ADDY 50-1 A Puch Maxi E50 crankcase.

- This requires the use of original carters issued by Puch or ADDY 50-1 A Puch Maxi E50 carter which may be machined.
- The stroke of the crankshaft must be 43 mm for each cylinder capacity.
- Use of oil coolers not permitted.
- However, it is permitted to use clutch covers which contain cooling slots for driving wind cooling and which increase the oil content of the crankcase.

### 4.4 Cylinder and cylinder head

- Only wind-cooled cylinders d e s i g n e d and manufactured for Puch are permitted.
- Cylinders should be freely available in the market (i.e., for sale to any consumer).
- The cylinder head should be completely cooled by driving wind and together they should meet The maximum dimensions of the cylinder and head, measured over the cooling fins, should not exceed 170 mm.
- For 50cc cast iron cylinder, the diameter should be 38.75 mm maximum.
- All other cylinders in the 50cc versions have a cylinder diameter of 38.00 mm.
- The maximum dimensions of the cylinder and head, measured over the cooling fins, must not exceed 170 mm.
- This includes no cooling spoilers attached to cylinder, head or engine block.

#### **4.5 Intake system and carburetor**

The intake system piston control, diaphragm on cylinder or crankcase is allowed. Use of a carburetor is mandatory here with a maximum diameter of 21mm.

#### **4.6 Exhaust**

No part of the exhaust system may protrude behind the rear tire at any time when the bike is in use. The exhaust (not just the muffler) must be attached to the frame with at least 1 bolt.

## **5. Technical Regulations Puchshopcup 70cc Automatic Class**

### **5.1 General**

Participating riders and mopeds must comply with the general provisions the general technical regulations in addition to these supplementary regulations. This may not be deviated from in any way.

### **5.2 Allowed versions**

Participation in this class is only possible for Puch mopeds as homologated for the market and originally intended for an E50 engine including front and rear suspension. These include type: Maxi, Maxi-S, X-30, Z-one, magnum(x) and so on. Frame construction is otherwise completely free, as long as it is based on and built from the aforementioned homologated e50 frames. Rims should have a minimum diameter of 16 inches and a maximum of 17 inches.

### **5.3 Engine Block**

Engine block must be homologated E50 in all classes; i.e. 1-speed automatic transmission with centrifugal clutch and chain drive to the rear wheel. Here it is also permitted to use the ADDY 50-1 A Puch Maxi E50 crankcase.

- This requires the use of original carters issued by Puch or ADDY 50-1 A Puch Maxi E50 crankcases which may be machined.
- The stroke of the crankshaft must be 43 mm for each cylinder capacity.
- Use of oil coolers not permitted.
- However, it is permitted to use clutch covers which contain cooling slots for driving wind cooling and which increase the oil content of the crankcase.
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### **5.4 Cylinder and cylinder head**

Only a cylinder cooled by driving wind is allowed with a maximum bore of 45mm. Also the cylinder head may only be cooled by driving wind. The maximum dimensions of the cylinder and head, measured over the cooling fins, may not exceed 170 mm. Here, no spoilers for cooling may be attached to cylinder, head or engine block.

### **5.5 Intake system and carburetor**

The intake system piston control, diaphragm on cylinder or crankcase is allowed. Use of a carburetor is hereby mandatory with a maximum diameter of 24mm for the class. The use of another intake system as well as the use of an injection system are excluded.

## **5.6 Exhaust**

No part of the exhaust system may protrude behind the rear tire at any time when the bike is in use. The exhaust (not just the muffler) must be attached to the frame with at least 1 bolt.

## 6. Technical Regulations Endurance Legends Automatic Class

### 6.1 Drive (block)

6.1.1 50cc Two-Stroke/ 88cc Four-Stroke AIR-cooled/ AUTOMATED!!! (Type: mobyette). Only atmospheric engines are allowed. The crankcase used must come from an homologated (released for public roads) 50cc AUTOMATE (also for 4-strokes), whose corresponding frame from sale possesses a minimum wheel diameter of 16 inches.

6.1.2 Carters or parts of carters where vario and torque-drive are in 1 alloy are not allowed (Short belt drives).

6.1.3 Automatics equipped with torque-drive should have the clutch on the shaft/ vario as original from factory.

6.1.4 No device to tilt the block or create more rpm is permissible.

6.1.5 Ignition must not be post-programmable. Ignitions with up to two curves: adjustable via a switch are permissible.

6.1.6 No types with foot or manual shifting are allowed, (see 1-1) even if the gears are removed. (No RD50 blocks, etc.).

6.1.7 Varios should be secured so that they cannot leave at full speed if broken off

### 6.2 Frame

6.2.1 Modifications to the chassis allowed however must be original from steering head to pivot point rear suspension.

6.2.1.1 Exception: Peugeot: frames where the horizontal frame tube is between tank and vertical tube of the  
Seat area soundly replaced.

6.2.1.2 Exception: Camino: frames where the horizontal frame tube is between tank and vertical tube of the  
Seat section soundly replaced.

6.2.2 Participation with frame composed of several mopeds is allowed provided the frame comes from a homologated moped with a minimum wheel diameter of 16 inches. Headstock pivot point behind bridge and intermediate tube or frame section must be original in this as well. (As described in 6.2.1)

6.2.3 Diameter wheels: minimum of 16 inches.

6.2.4 Suspension: Entirely at your discretion and choice: the mounted part must be both sound and safe! The mounted or replaced suspension must work optimally to type.

## **7. Technical Regulations Tomos to 70cc Automatic class**

### **5.1 General**

Participating riders and mopeds must comply with the general provisions the general technical regulations in addition to these supplementary regulations. This may not be deviated from in any way.

### **5.2 Allowed versions**

Participation in this class is only possible for Tomos mopeds as homologated for the market and originally intended for an A35/ A55 engine including front and rear suspension. These include type: A3, Flexer, Revival and so on. Frame construction is otherwise completely free, as long as it is based on and built from aforementioned homologated frames. Rims should have a minimum diameter of 16 inches and a maximum of 17 inches.

### **5.3 Engine Block**

Engine block must be homologated A35/ A55 in all classes; i.e., 1or 2-speed automatic with centrifugal clutch and chain drive to the rear wheel.

- Original Tomos issued carters that may be machined should be used.
- The stroke of the crankshaft must be 43 mm for each cylinder capacity.
- Use of oil coolers not permitted.
- However, it is permitted to use clutch covers which contain cooling slots for driving wind cooling and which increase the oil content of the crankcase.

### **5.4 Cylinder and cylinder head**

Only a cylinder cooled by driving wind is allowed with a maximum bore of 45mm. Also the cylinder head may only be cooled by driving wind. The maximum dimensions of the cylinder and head, measured over the cooling fins, may not exceed 170mm. Here, no spoilers for cooling may be attached to cylinder, head or engine block.

### **5.5 Intake system and carburetor**

The intake system piston control, diaphragm on cylinder or crankcase is allowed. Use of a carburetor is hereby mandatory with a maximum diameter of 24mm for the class. The use of another intake system as well as the use of an injection system are excluded.



## **5.6 Exhaust**

No part of the exhaust system may protrude behind the rear tire at any time when the bike is in use. The exhaust (not just the muffler) must be attached to the frame with at least 1 bolt.