

TECHNICAL REGULATION 2024 EUROPEAN CHALLENGE



# **TECHNICAL REGULATIONS EUROPEAN DRIFT CHALLENGE 2024**





Real Federación Española de Automovilismo

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# <u>INDEX</u>

DEFINITION

# **TECHNICAL REGULATION**

- 1. VEHICLES
- 2. CATEGORIES
- 3. PILOTS
- 4. LICENSES, APPROVALS AND INSURANCE
- 5. LINES, BOUNDARIES AND PLACES OF TEST
- 6. EQUIPMENT / PADDOCK
- 7. MODIFICATIONS
- 8. SANCTIONS / PENALTY

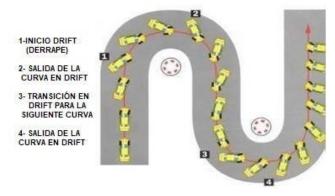
These Regulations apply to the European Drift Challenge, each of them must present a Specific Regulation of the event and duly approved by the RFEDA.





# **DEFINITION**

Drift or Drifting is a driving technique that consists of driving curves in a controlled skid, making the rear end of the car skid and run on the outside of the curve, while the front part runs on the inside, with the maximum angle and speed, possible speed, controlling the drift, making the vehicle literally roll sideways. See the image below for better understanding:



In a Drift race there are several designated parameters, such as Speed (both entry and average), Drift Angle, proximity to clipping-points and/or Drift Zones and to other vehicles (Line), Show given by the driver, which They are evaluated by judges and/or telemetry. The drift competition has two different competitive parts:

In the initial phase, the qualifying phase, the drivers must follow the route marked by the judges in the briefing, at the highest speed possible and getting as close as possible to the points and areas marked as clipping points or drift zones, without losing the drift, at no time and with the greatest angle possible. The pilots will receive a score from the judges (up to 100 points) that will determine the confrontations in the battle phase.

The highlight of the competition is the final phase, the so-called battles, in which the drivers compete 1 against 1 simultaneously on the track. in elimination matches.

In these eliminatory matches, two passes are made. The leading driver must perform a perfect qualifying lap, without corrections and with a chaseable line. The chasing pilot must make a similar pass (except for errors by the leader) with the most proximity to the lead driver as possible. In the second pass the positions are exchanged (the chaser now leads and the one who was leading now chases). After both passes the judges give an eliminatory verdict, the winning driver will qualify for the next phase of the round, in which they will confront another competitor, and the loser will be eliminated.





# **TECHNICAL REGULATION**

# Art. 1 - VEHICLES

# 1- Technical checks

**1.1** - Technical Verifications are always mandatory, and the vehicle must be presented in the state in which it will be used in the competition and with all the necessary safety equipment.

**1.2** - Technical Verifications will be carried out on the date and time indicated in the specific regulations of the event.

**1.3** - Type of Vehicles Allowed - There is a great variety (in terms of power and preparation) of vehicles that are usually used to practice this modality, but in the European Challenge they are all grouped in the same category.

**1.4** - Vehicles must have all essential body parts/panels intact. Maintaining the bodywork to a professional standard is mandatory, including a recent paint job. The appearance of an unprofessional car could result in cancellation of registration or participation in the test.

**1.5** - Light vehicles with rear-wheel drive, with original chassis or not, of the make and model of series production are allowed.

1.6 - Light vehicles with 4x4 traction as standard are allowed, as long as they are

converted to rear-wheel drive.

**1.7** - Vehicles with standard front-wheel drive and converted to rear-wheel drive are not permitted.

1.8 - Vehicles with tubular chassis are not allowed





# Art.2 – TECHNICAL REGULATIONS OF THE CATEGORY

#### 2.1. - Definition of the category

The category will be unique in the European Drift Challenge. It is based on the Pro category of Drift Spain, and is intended as the highest category at the national level. This category includes passenger-type production vehicles with rear-wheel drive, with an engine without power limits. The preparation described in article 2 of this Regulation is permitted

#### 2.2. - Engine

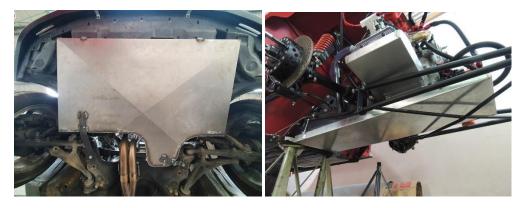
Modification, replacement, modification of the engine, in part or in whole, is allowed. Cutting/altering the fire protection (plate) separating the passenger compartment from the engine compartment is permitted, provided that complete and complete separation of the passenger compartment is guaranteed. It is also allowed to change the electronic control unit, injection, intake, exhaust and supercharging systems (Turbo, etc...). The placement of superchargers (Turbo, etc...) is allowed. No liquid loss of any kind (oil, fuel, water, antifreeze, etc.) will be tolerated.

#### 2.2.1 – Power

The minimum advisable power is 300 kw - 400 horses. There are no maximum power limits.

#### 2.2.2 – Liquid containment tray

The engine must have a liquid containment tray mounted at the bottom of the engine. It can be assembled so that it can be put on and taken off as long as once put on, it is fully secured. This tray must cover the crankcase and gearbox and must be 1 inch high.



#### 2.2.3. Nitrous oxide

The installation of any type of nitrous oxide in vehicles is permitted, whether through direct port, indirect port or any other system.

# 2.3.- Transmission, Clutch, Gearbox, Differential, Axles and Semi-axles

The replacement and/or modification of these elements with others is permitted as long as it does not affect the safety of the vehicle. Exception made to the rear axle that must be fixed at the origin points of the body. The use of "aftermarket" Nascar-type gearboxes, sequential gearboxes, etc. is authorized. The use of quick-change final ratio "aftermarket" differentials is permitted.





### 2.4. - Exhaust

The exhaust system must have a silencer, the maximum authorized limit being 95DB (decibels), for an engine speed of 3500 rpm for gasoline engines and 2500 rpm for diesel engines.

(Exhaust pipe position removed as many currently competing vehicles do not meet the requirement)

Effective protection must be provided so that the tubes do not cause burns when they are hot. The exhaust system should not present a temporary appearance. Exhaust gases can only exit at the end of the system. Parts or parts of the chassis must not be used for exhaust gas evacuation. It is recommended that diesel vehicles have the gas outlet facing upwards with a minimum curvature of 75 degrees.

The assembly of the discharge valve (Pop Off Valve or Wastegate) is allowed. The outlet must be vertical, and an opening can be made in the hood to allow free discharge. This outlet must be made using a metal tube with a minimum height of 3 cm, measured from the hood at the point closest to the outlet.

# 2.5. - Fuel and tank

Any grade/type of gasoline or diesel is allowed to be used. The fuel tank must be the original one of the vehicle series or an FIA approved fuel tank - according to CDI Annex J Art. 253.14, or a safety fuel tank that complies with the SFI 28.1 standard.

The fuel tank cap must be solidly fixed so that it cannot open in the event of an impact. Fuel leaks of any kind will not be tolerated.

In exceptional cases, fuel tanks other than those mentioned previously may be allowed, for which the express authorization of the authorized technical director of the RFEDA must be obtained, without which the pilot will not be authorized to start the competition.

# 2.6. - Battery

The battery must be securely fastened and protected in place. If it is located outside its place of origin, it must be in a plastic box and isolated from the pilot cabin, as well as fuel pipes and tanks. Said box must have a vent, simply an opening.

# 2.7. - Suspension and steering

Replacing and/or modifying the suspension, as well as the upper or lower suspension arms or triangles of the vehicle, is permitted as long as it does not affect the safety of the vehicle. The assembly of "tension rods" or adjustable suspension braces on both axles is permitted. The mounting of a reinforcement bar between suspension turrets at the front and also at the rear of the vehicle will be permitted. Modifications to the steering system are permitted with specific angle kits.

# 2.8. - Brakes

The brakes must be in perfect working order, allowing the installation of a hydraulic handbrake system, it being mandatory that the system also works like the original, either as a complement to the standard system, or as a separate system with double calipers, and must be applied only to the rear wheels. The foot brake must brake on all 4 wheels. The replacement of the calipers and the variation of the size of the discs with respect to the standard braking system are allowed. The use of metal hoses, aftermarket replacement discs and pads, and brake distributors is permitted.





#### 2.9.- Tires

Tires other than the vehicle's standard wheels are permitted. The rims must be painted or have stickers or paint on the tire in a contrasting color on a specific part of each of the wheels during official training, qualification and competition, examples in the following figures contrasting on a specific part of each of the wheels. wheels during official training, qualification and competition, examples in the following figures in the figures below



The use of spacers (separators) is authorized.

#### 2.10.- Tires

Only commercial tires approved for on-road use are permitted.

Legal and APPROVED road semi-slick tires (such as Toyo R888, Yokohama Advan Neova, Federal 595 RS-R, Nankang NS2-R and similar) can be mounted on BOTH AXLES. Competition tires of any type (slicks, rally tires, etc.) are NOT permitted IN ANY CASE.

There is no limitation on the number of tires that will be used in each race.

Colores tires are not permitted.

#### 2.11. - Body and exterior

The body of the vehicle can be modified as long as it does not invade the chassis. It is mandatory to keep both exterior mirrors which have good visibility. The vehicle must have a good presence and appearance from the beginning to the end of the competition. The bodywork must be in good condition. It must respect the lines of the standard vehicle. All panels and glass must be properly secured. The pilot must be completely isolated from the engine compartment, battery, tank, or fuel and water lines. There cannot be any loose items in the vehicle, both exterior and interior.

#### 2.11.1- Exterior appearance

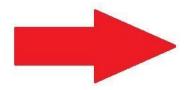
The exterior appearance can be changed, modified by bumpers, hoods, skirts, spoilers, wide fins or fins. Fiberglass or carbon fiber pieces can be used. The dimensions of the body (length and width) cannot vary more than 10%. It must maintain a quality close to the standard vehicle.





#### 2.12.- Towing hooks

Tow hooks are mandatory: one at the front and one at the rear of the vehicle, to quickly tow the vehicle in the event of an accident or stop. They must be visibly marked by a sticker with an indicative arrow of contrasting color. They must remain in place throughout the race.



#### 2.13- Electricity

It is mandatory to turn off the electrical power (Master Electrical Cut Off Switches) with access from the inside and outside of the vehicle. It must disconnect all electrical circuits (battery, alternator or dynamo, lights, warning lights, ignition, electrical accessories, etc.) and it must also stop the engine. Its interior must be easy to access for the pilot. On the outside, the switch should be installed on the driver's side bodywork, near the bottom of the windshield, it can be on the fender or hood. It must be visibly marked, both inside and outside, by a red radio sticker placed on a blue triangle bordered in white with at least 12 cm at the base.



#### 2.14.- Lights

At least two position lights at the front, one on each side and two brake lights at the rear are mandatory. In case it is a night race, two low beams are required at the front, one on each side. They must be in perfect working order throughout the race, including the brakes, except in the event of an accident and their destruction during the race. It is mandatory to place additional brake lights, LED tape or similar in effect, at least 60 cm long, at the front of the vehicle, they must be clearly visible from the outside. This system can be inside or outside the vehicle, it must be installed in the upper part of the front windshield (take special care not to cover the front window with the advertising banner or sunshade). It must connect to the vehicle's brake light system and operate simultaneously.





### 2.15.- Interior

It can be altered, modified, as long as it does not endanger the driver and/or third parties, or the safety of the vehicle. You can replace and/or change the position of the steering wheel, the gear lever, the handbrake and the rest of the controls. It is advisable to carry out an anti-reflective treatment of the dashboard.

# C.16.- Safety arch / Roll Bar - Roll Cage

It is mandatory to use a safety arch, minimum of 6 points. They are allowed without approval or with approval that has expired for a maximum of 3 years, as long as its structure is intact, that all welds show good signs of penetration and the tubes are welded throughout their circumference (360°), the diameter and type measurements must be respected. pipe, according to current regulations (article 253 of annex J of the CDI). In exceptional cases, complete cages other than those previously mentioned may be allowed, for which the express authorization of the authorized technical director of the RFEDA must be obtained, without which the pilot will not be authorized to take the start.

# 2.17.- Seat belts

Mandatory use of competition belts with 5 fixing brackets, according to FIA 8853-98, FIA 8853-2017 or SFI 16.1 or 16.5 standards, which are approved or even have expired approval, up to 3 years, but in perfect condition of use. Installation according to FIA Art. 253.6, Annex J of the CDI.

### 2.18.- Seats

The use of bucket seats is mandatory, preferably with headrests, with FIA 8855-1999, FIA8862-2009 or FIA 8855-2021 approval, or even with an expired expiration date, up to 3 years, but in perfect condition for use.

#### 2.19.- Ceiling

For convertible vehicles, it is mandatory to install a safety arch, as indicated above (point C.16). It is mandatory to place "Window Nets", in accordance with Art. 253.11 of the FIA, Annex J of the CDI, placed on the windows and roof, in this case fixed to the Safety Arch. It is also mandatory to use the approved "Arm Restraints" system in accordance with SFI specifications.3.3. or the equivalent.

#### 2.20.- Fire extinguisher

The vehicle must be equipped with a fire extinguisher for automotive use (minimum 2 kg), and within the expiration date. The fire extinguisher must be securely fastened. The closures must be quick release and must be placed within reach of the pilot. It must be able to be operated from the outside with a handle necessarily located below the windshield pillar, on the driver's side. Likewise, it must be clearly indicated by a red letter E within a white circle, surrounded by a red line with a diameter of 10cm. It is advisable to place the system in accordance with Art. 253.7.2 of the FIA, Annex J of the CDI or in accordance with SFI 17.1.







### 2.21.- Glass / Windows

The vehicle must have all the glass in perfect condition and visibility, only allowing standard glass or polycarbonate glass with a minimum thickness of 3.8mm. If glass is used, use transparent self-adhesive film. The placement of a "Window Net" type security network is not mandatory. If installed, they must have the following characteristics:

Minimum width of bands	19mm
Minimum size of openings	25x25mm
Maximum opening size	60x60mm

In very exceptional cases, with prior notice to the organization and for duly justified reasons (such as a breakage during transport of the vehicle to the circuit), a driver may be authorized to start with a damaged glass, adequately protecting the crack with a totally transparent vinyl., for which you must have the express authorization of the authorized technical director of the RFEDA, without which the pilot will not be authorized to start the competition.

### B.22.- Weight limits

There are no weight limits

# Art. 3 – PILOT RACING EQUIPMENT

#### IT WILL BE MANDATORY:

- Full face or semi-integral helmet, with FIA approval. It's ID must be visible
- Racing gloves with approval according to FIA standard 8856-2000;
- Flame retardant racing suit, according to FIA standard 8856-2000;
- Sports footwear, racing boots with approval, according to FIA standard 8856-2000;
- Socks, according to FIA standard 8856-2000;
- Underwear, according to FIA standard 8856-2000;
- Boots approved by FIA standard 8856-2000.
- HANS protection system, according to FIA standard 8858-2010

# Art. 4 - LICENSES, APPROVALS AND INSURANCE

**4.1**- According to the CDI, the approved Regulations and particular regulations of the event, as well as its annexes.

# Art. 5 - LINES, LIMITS AND PLACE OF COMPETITON

The European Challenge will take place in Madrid, Spain at the Jarama Race Track, located in Via de





Servicio A-1 KM 28, 28707, San Ssebastián de los Reyes, Madrid.

# Art.6 - EQUIPMENT / PADDOCK

**6.1** - The existence of a fire extinguisher of at least 2 kg per team car is mandatory.

**6.2** - Competition vehicles, when parked in the Paddock, must remain within the designated space, inside the tent or in the box (space), the floor must be protected with a waterproof mat.



**6.3** - Teams/competitors/drivers must keep their space clean and tidy, as well as use civility, courtesy and fair play.

IN THE EVENT OF ANY DISPUTE OR DIFFERENT INTERPRETATION, AS WELL AS ANYTHING TO THE CONTRARY IN THIS REGULATION, THE CDI OR RFEDA WILL APPLY.

# Art. 7 - MODIFICATIONS

**7.1** - **Modifications**- Any modification to this technical regulation will be introduced with the approval of the RFEDA.

**7.2** - **Doubts in interpretation**- In the event of a dispute, and until the start of the competition, the RFEDA management will be responsible for deciding the correct interpretation. After the start of the test, it will be the CCD who decides.

Article	REASON	SANCTION
8.1	Failure to comply with the provisions of this article	Unauthorized or exclusion
8.2	Have fluid/engine leaks	Unauthorized or exclusion In competition at the discretion of CCD
		D   10

# Art. 8 – SANCTIONS / PENALTIES



TECHNICAL REGULATION 2024 EUROPEAN CHALLENGE



8.3	Failure to comply with the regulations related to the Suspension System.	Unauthorized or exclusion In competition at the discretion of CCD
8.4	Failure to comply with the regulations related to the Body System	Unauthorized or exclusion In competition at the discretion of CCD
8.5	Failure to comply with the regulations related to the Management System.	Unauthorized or exclusion In competition at the discretion of CCD
8.6	Braking system not eligible to participate.	Not authorized.
8.7	Not having a hitch structure to tow the vehicle.	Unauthorized or exclusion In competition at the discretion of CCD
8.8	Failure to comply with the regulations related to the Battery System.	Not authorized.
8.9	Do not have the power cut-off switch.	Not authorized.
8.10	Incorrect operation of the brake lights.	Not authorized
8.11	Using unauthorized tires.	Unauthorized or exclusion.
8.12	Failure to comply with regulations related to Loudness.	Not authorized.
8.13	Failure to comply with the regulations related to Harnesses.	Not authorized.
8.14	Failure to comply with the regulations related to the Roof.	Not authorized.
8.15	Have fluid or liquid leaks.	At the discretion of the CCD, Exclusion.
8.16	Failure to comply with the regulations related to the Fire Extinguisher.	Not authorized.
8.17	Loose elements in the body (internal and external)	Not authorized.
8.18	Braking system not eligible to participate.	Not authorized.
8.19	Not having the hitch to tow the vehicle.	At the discretion of the CCD, Exclusion.
8.20	Failure to comply with the regulations related to the fuel tank.	Not authorized.
8.21	Do not have the power cut-off switch.	Not authorized.
8.22	Incorrect operation of the brake lights/No front brake light. (SEMI PRO – PRO)	Unauthorized or exclusion
8.23	Using unauthorized tires.	Not authorized.
8.24	Failure to comply with the regulations related to the Safety Arch.	Not authorized.
8.25	Failure to comply with the regulations related to Seats (backets).	Not authorized
8.26	Failure to comply with the regulations related to Harnesses	Not authorized.
8.27	Do not have the liquid retention tray mounted and fluids	Not authorized.
8.28	Present fluid leaks of any type.	At the discretion of the CCD, Exclusion.





8.29	Failure to comply with the regulations related to the Fire Extinguisher.	Not authorized.
8.30	Do not bring the exhaust outlet upwards (min.75 degrees) in diesel vehicles.	Not authorized.
8.31	Failure to comply with the regulations related to pilot clothing	Not authorized.



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