

## Technical Regulations - Class Racing GT1

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### Shortenings:

FIA = Federation Internationale de l'Automobile

NBF = Norges Bilsportforbund

NSR = National Sport Regulations

RACS = Norwegian Racing Commission

### Introduction

When the GT-classes were established in 2008, was this to open up the possibility of competing in racing with more types of cars than what was in the previous class conditions. This has clearly been a success and we have seen a steadily increasing number of cars that have entered the racing community.

The safety and quality of the cars must be at the top level and there must be no doubt about safety constructions on the cars that participate in Norwegian Racing-series/events. Around the world we see the high priority of the cars safety this should also reflect the cars participating in class GT1.

If it is obvious that a car has aerodynamic or other technical advantages that differ significantly from other cars in the class, NBF can impose a permanent additional weight of up to 50 kg. This must be notified in writing no later than ten business days before the start of the next race.

It is the RACS who determines the use of success weight and the decision of this weight is inappellabel.

The regulations will now be based on power to weight ratio and the additional weight you get for the car's equipment. At the same time, the regulations distinguish between professional-built cars and self-built cars, where it is recognized that professional-built cars have abilities that a self-built car can never achieve, therefore an additional weight for a professional built car.

### Definition professionally built car:

Car manufactured by the factory's motorsport department. Cars produced as original cup cars. Cars manufactured for FIA GT 2 and 3. Cars manufactured/modified by reputable motorsport companies.

### In general for class GT1:

The car must be a series-produced or series-produced-looking car, which is built in a sufficient number of copies that it can be documented that the construction has been safety tested either by road authorities or that it can be documented that the car is approved with a FIA licensed race license or equivalent. (USA has licensed races outside the FIA). The car must be closed and equipped with a full safety cage according to FIA's rules or §304 NBF General Safety Regulations.

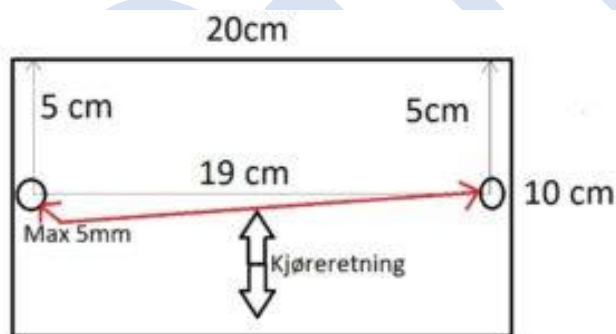
All participants must submit an information form for the car to be used before each season before participating. Submission must be made no later than 4 weeks before participation. The form is to be found on the website of NBF or you can find the excel version here: [information form-Racing-for-cars-in-GT-class](#)

Specifically rated cars are cars that must comply with regulations under which the car / car type originally competed. These cars cannot be changed beyond what is described in the regulations they must follow. Specifically rated cars: FIA GT3 cars newer than 2015. The cars must have an original restrictor. FIA GT3 from and including 2019 must compete in the class GT +.

Powerlog is used to control the car's weight to power ratio.

### Powerlog

Powerlog must be mounted on the floor or central tunnel. The area for mounting must be 10 X 20 cm. Powerlog will be screwed on with 2 screws of max 5 mm, 19cm apart at the center. You can mount a fixed plate of steel or aluminum that the power log can be attached, this must be permanently mounted with welds, screws or rivets.



All cars must be equipped with a power supply for the Powerlog which is directly connected to the main power switch, the power must only be switched off when the main power switch is switched off.

It is the driver's responsibility that the mounting space is prepared before the race, and that the car always has a power supply according to the specification above. The driver/owner of the car is required to cooperate with the Powerlog control team without any reservation. Every attempt to sabotage measurements, Powerlog or associated parts/systems can lead to a refusal to start in competitions or other penalties decided by the Stewards.

If the weight to power ratio is outside the class regulations, this will lead to a report to the Clerk of the course and Stewards to investigate and decision of penalties.

### **Weight to power ratio**

Weight to power ratio for the class GT1 is 2.25. This is power measured at the wheels and will be controlled with the Powerlog. Minimum weight in the class regardless of power is 900 kg. All weights must be rounded up to the nearest 10 kg and include the driver (incl. full personal equipment) measured after the competition. The cars must also have additional weight according to the car's equipment according to the list below.

Specific classified cars: FIA GT3 cars newer than 2015.

Additional weight for professionally built car: 50 kg. For cars 2015 year models and newer the additional weight for professionally built car is 100.

List for additional weight according to the car's equipment GT1

| <b>Equipment</b>        | <b>Additional weight</b> |
|-------------------------|--------------------------|
| Racing ABS              | 30 Kg                    |
| Racing Traction control | 25 Kg                    |
| Active differentials    | 50 Kg                    |
| Adjustable aerodynamics | 50 Kg                    |
| Ceramic/carbon brakes   | 50 Kg                    |

Example:  $500 \text{ hp} \times 2.25 = 1125 \text{ kg}$  + Racing ABS 30kg and Traction control 30kg = 1185 kg incl. driver. This will be the minimum weight.

## **1. Chassis and frame**

The chassis or frame must not be lightened in a way that will impair its safety, special care must be taken for the cockpit area. Material in fenders, engine bonnet, boot lid and doors, as well as the area in front and behind the center of the wheel hubs are free. Bulkhead between engine and luggage compartment must be liquid proof. The car's floor and ducts must not be constructed together in such a way that an aerodynamic «tunnel-effect/ground-effect» is achieved. The side-rail/side-skirt that is lower than the floor should not be further towards the center of the car than the center line on the wheels.

## **2. Wheels**

### **2.1. Rims and tires**

Dimensions of rims and tires are free, but racing tires or trackday tires are recommended.

### **2.2 Wheel guard**

Cars in this class must have fenders, open wheels are not allowed.

### **2.3. Suspension**

Suspension is free, but there must be a sprung suspension with a minimum travel of 50mm/wheel. The suspension must be dimensioned to fit the car's speed abilities and there must be no risk of parts of the suspension failure resulting the wheels to come loose. The car must have a steering column with a safety device mounted.

## **3. Drivetrain**

### **3.1 Engine**

A car can only have one engine. The number of cylinders and tuning is free. Lubrication and cooling system is free, but all hoses must be of good quality so liquid spills on the track are avoided. It is permitted to change the engine location in the car, for example to convert to a central engine. There must still be plenty of room for the driver inside the car. The throttle wire must have a return spring that prevents the throttle from hanging up.

It is possible to use a restrictor to reduce the effect and thus reduce the weight of the car. The restrictor must be installed in accordance with FIA International Regulations, see drawing 254.4 for turbocharged engines. For naturally aspirated engines the restrictor must be mounted in front of the throttle valve.

### **3.2 Fuel system and tank**

All cars must have a relay that stops the electric fuel pump if the engine shut off.

**Fuel tank:** The fuel tank must not be located closer to the car's rear plate than 20cm. If the fuel tank is 30 liters or more, it has to be a safety fuel tank homologated by the FIA. (specification FT3-1999, FT3.5-1999 or FT5-1999). The fuel tank and hoses must be isolated from the passenger compartment with a protective device. The filling nozzle is free, but they must not protrude beyond the surface of the bodywork.

**Fuel:** The car may only use fuel that is in free trade in Norway. Fuel must be in accordance with NSR §307. Gasoline with added ethanol is allowed. (E85). Diesel is not allowed.

### **3.3 Cooling system**

Water coolers, oil coolers and intercoolers must be installed so they not protrude beyond the surface of the bodywork. It is not permitted with couplings on hoses and pipes that are passed through the passenger compartment. Antifreeze with glycol is not allowed.

### **3.4 Exhaust**

The exhaust system shall be built so that the sound is kept at all times under the current NBF Noise Regulations, §303. Cars in classes GT1, GT2 og GT+ are exempt from the requirement in NSR §307 B, that the exhaust pipe must end behind the rear wheels.

### **3.7 Gearbox, final drive and differential**

Gearbox is free, but the car must have working reverse gear. If the longitudinal axle passes through the passenger compartment, a safety ring of at least 10cm in diameter, 5mm thick and 30mm wide at the front and rear must be fitted.

## **4.Brakes**

All cars must have a two-circuit braking system. The braking system must be dimensioned for the car`s performance so that there is no danger of brake failure or weak braking effect. The material in the brake discs must be magnetic unless the car was originally supplied with other material. This must be documented and will lead to additional weight.

## **5.Safety Equipment**

### **5.1 Safety cage**

All cars must have safety cage in accordance with NSR §304 or FIA appendix J 253.

### **5.2 Driver`s seat**

All cars must have an FIA approved seat. (Dispensation can be given in special cases). The seat must be mounted in accordance with NSR §304-9. Seat position can be moved if this is safe. The seat must be at least 100mm laterally offset from the car`s centerline if the car is not homologated with a center located seat.

### **5.3 Safety Harnesses**

All cars must have a valid six point FIA approved safety harness and must be equipped with turnbuckle release systems.

### **5.4 General Circuit breaker**

All cars must have an external and an internal general circuit breaker that must cut all electrical circuits and must also stop the engine.

### **5.5 Extinguishers – Extinguishing systems**

It is recommended that the car be equipped with a extinguishing system compliance with FIA Standard 8865-2015.

### **5.6 Towing-Eye**

All cars must be equipped with a rear and front towing-eye and they must not protrude beyond the surface of the bodywork. It must be clearly visible and painted in yellow, red or orange.

### **5.7 Rear view**

Rearward visibility must be ensured by minimum one rear-view mirror.

### **5.8 FHR – Front Head Restraint system**

Front Head restraint system (FHR\*) is mandatory in all classes. (FIA appendix L Chapter III and FIA Technical list no. 25,29,33 and 41).

\* FIA standards 8858-2002 and 8858-2010

## **6.Bodywork/ Chassis(Bodyshell)**

### **6.1 Minimum height/ Ground clearance**

No part of the bodyshell may touch the ground if two tires on the same side are empty of air or punctured.

## **6.2 Bodyshell exterior**

Maximum width is 210cm and maximum length is 550cm. The fenders should cover approximately 2/3 of the circumference of the tire.

## **6.3 Doors**

There is no requirement that the car must have doors that can be opened, but the driver must be able to get out of the car within 10 seconds. (indicative of driver's safety).

## **6.4 Bonnet and Trunk lid**

The car must be equipped with a device that allows the marshals to be able to open the bonnet and trunk lid from the outside. The device must be marked with function. (press, drag, turn) if necessary.

## **6.5 Aerodynamic**

The aerodynamic is free. The floor of the car must not be constructed in such a way that an aerodynamic tunnel effect is achieved.

## **6.6 Windscreen, side and rear window**

The windscreen must be of laminated glass or of a polycarbonate with a thickness of minimum 3mm. Rear window can be tempered glass or of a transparent plastic material with a minimum thickness of 3mm. There is no requirement with side windows, but if the car does not have side windows, a safety net must be fitted.

# **7. Electrical Equipment**

## **7.1 Battery**

The electrical system is free. The battery must be securely fastened with a top frame and a bottom frame with a minimum of 2 bolts of 8mm and reinforcement plates with an area of at least 20 cm<sup>2</sup> If the battery is mounted inside the passenger compartment, it must be in a liquid-proof box. (This applies to batteries with battery acid)

## **7.2 Windscreen wipers**

Windscreen wipers are free, but there must be at least one in working order.

## **7.3 Rear braking lights**

Two lights symmetrical at 21W or LED according to NSR §307 are mandatory.

## **7.4 Lighting system**

Two taillights of 10W and two headlights of 55W, or LED in accordance with NSR §307 are mandatory. The size is free.

### **7.4.1 Side indicator lights**

Two rear and two front indicator lights of 21W are mandatory.

### **7.4.2 Safety light/Rain light**

All cars must have one light that must be switched on constantly. It must be situated at the vehicle centerline and must be clearly visible to cars behind.

# **8. Ballast and fastening**

### **8.1 Ballast.**

Maximum weight of ballast in the same assembly is 100kg.

### **8.2 Fastening**

The ballast must be mounted with good enough fastening and not protrude beyond the surface of the bodywork. The Scrutineer may request weighing of the ballast and set additional requirements for fastening.

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