



Document: 06

**2024 Repco Bathurst 12 Hour
Mt Panorama, Bathurst, New South Wales
16 – 18 February 2024**

To: All Bathurst 12 Hour Competitors & Drivers
From: Motorsport Australia Stewards of the Event
Re: Balance of Performance for the 2024 Repco Bathurst 12 Hour Race

In accordance with the 2024 Repco Bathurst 12 Hour Sporting and Technical Regulations; the previous Balance of Performance is replaced with version published 17 February 2024.

The revised SRO Balance of Performance for the 2024 Repco Bathurst 12 Hour is attached.



**A signed copy of this document is available to view at the Secretary of the Event Office.*

Trevor Neumann (Chair)

Steve Lisk

Steve Chopping AM

Matthew Halpin

DATE: 17 February 2024

TIME: 1132hrs



BALANCE OF PERFORMANCE FOR REPCO BATHURST 12 HOUR



BALANCE OF PERFORMANCE FOR THE 2024 REPCO BATHURST 12 HOUR

These balance of performance measures are the result of the tests, research, analysis and projections performed by SRO Ltd and are the sole property of SRO Ltd. Other series promoters, race organizers and national sporting authorities cannot use all or part of them without SRO Ltd's prior written consent. Any contravention will result in a legal action.

Make	FIA GT3 Homologation	Model	Min Weight	BOP Ballast	Total Weight without driver weight	Engine Restrictor size mm	Min RH Front mm	Min RH Rear mm	Refueling Rig Restrictor mm	Total Fuel Capacity Max liter	Lambda Fixed	Comments
Audi	GT3-038	R8 LMS GT3 EVO II	1260	75	1335	2 x 37	65.5	128	31*	116	0.91	
BMW	GT3-053	G82 M4 GT3	1265	45	1310	none	82.5	81.5	32	108	1.10	Max Pboost see table
Lamborghini	GT3-054	Huracan GT3 EVO2	1250	60	1310	1 x 53	70	128	31*	117	0.91	Wing Pos 9
Mercedes	GT3-042	AMG GT3	1285	55	1340	2 x 35	81	87	32	109	0.93	Max Front camber -4°
Porsche	GT3-050	911 GT3-R (991.II)	1235	45	1280	2 x 43	70	124	29	106	0.88	
Porsche	GT3-055	911 GT3-R (992)	1250	40	1290	2 x 39.5	96	120	29	106	0.89	

1. Remarks:

- 1.1 Additional weight must be installed in accordance with 2024 FIA Appendix J International Sporting Code article 257A . Driver pairing weight has to be installed in the ballast box.
- 1.2 Additional weight of driver cooling elements mentioned in the Repco Bathurst 12Hour Sporting and Technical regulations are integrated in the Total Weight.
- 1.3 In accordance with article 257A Appendix J 2024 , the fuel cell must be equipped with the mandatory foam supplied by and installed following the directives from the manufacturer of the fuel cell.
- 1.4 Technical drawings of air restrictors for 2016/2017/2018/2019/2020/2021/2022/2023 cars are registered with FIA. Only restrictors in compliance with this registration are allowed
- 1.5 Use of catalytic converter compulsory
- 1.6 The SRO Sporting Board is allowed to modify any parameter required to establish the balance of performance cfr the Sporting Regulations.
- 1.7 Cfr the Sporting Regulations : Engine reference data (iA, Lambda, Fuel inj, Cam In/Out, airbox pressure drop, etc) is the one collected during BOP tests and will be used for checks. Lambda is fixed. Fuel saving maps are not allowed!
- 1.8 Refueling rigs, refueling rig restrictors shape and refueling couplers need to comply with art 257A Appendix J 2022 and Sporting /Technical regs/Notes
- 1.9 * If Krontec 88 K SL, if other Krontec coupler, refueling restrictor size reduces with 2 mm.
- 1.10 Aero devices can not be covered by tape or paint.
- 1.11 Maximum rear static camber is -3,5°
- 1.12 Only springs homologated in the FIA GT3 homologation file can be used for cars homologated till end 2021 and 2022 EVO homologations. For new FIA GT3 cars homologated from 2022 onwards only springs allowed by SRO Motorsports Group and presented by the manufacturer homologating the car can be used.
- 1.13 Pboost limitation and Pboost control strategy, see further.
- 1,14 Total Fuel Capacity is for 32 laps max in normal race conditions based on collected fuel consumption data from FP4s and discussions with manufacturers. Cars doing more laps will be reported to the Stewards.

Maximum Pboost Limit ratio for Turbo cars

Engine speed	BMW M4 GT3
RPM	Pboost ratio @ rpm @ Lambda
4000	2.33 @ 1.10
4250	2.36 @ 1.10
4500	2.42 @ 1.10
4750	2.48 @ 1.10
5000	2.50 @ 1.10
5250	2.55 @ 1.10
5500	2.60 @ 1.10
5750	2.64 @ 1.10
6000	2.67 @ 1.10
6250	2.70 @ 1.10
6500	2.59 @ 1.10
6750	2.49 @ 1.10
7000	2.37 @ 1.10
7250	2.20 @ 1.10
7500	2.10 @ 1.10
7750	
8000	
8100	

2. Notes on boost control :

- Values are boost pressure ratio and need to be multiplied by the ambient pressure to get the Pboost limit.
- Competitors must adjust boost pressure relative to ambient pressure at each event
- Pboost limits linear interpolation approach
- Control of Pboost strategy see further.

3. Control of Pboost strategy via Series Datalogger and pressure sensors:

IF

- Throttle is > 30% open AND
- RPM is > 3000 AND
- Longitudinal Acceleration is increasing or constant or >/0 AND
- OVERBOOST > "Limit + 10 mbar" is recorded for more than 50ms

THEN

- Flag and report to the stewards

Make	Homologation SRO GT2	Model	Min Weight kg	BOP Ballast kg	Final Weight kg Without driver*	Restrictor Size mm	RH Front Min mm	RH Rear Min mm	Comments
KTM	GT2-003	X-BOW GT2	1200	+50	1250	none	75	200	Unrestricted MAP ECU BOP 2023

1.1 Additional weight must be installed in accordance GT2 Technical Regulations

1.2 Additional weight of driver cooling elements mentioned in the Repco Bathurst 12Hour Sporting and Technical regulations are integrated in the Final Weight.

1.3 Restrictors must be the homologated ones.

1.4 Use of catalytic converter compulsory

1.5 The SRO Sporting Board is allowed to modify any parameter required to establish the balance of performance and can change the BOP decisions for any car at any moment during the event.

1.6 Max camber for all cars static: Front -3,5° and Rear -3°

Make	Model	Min Weight kg	BOP Ballast kg	Total weight	Ride Height Front	BOP extra mm	Ride Height Rear	BOP Extra mm	Comments
McLaren	Artura GT4	1320	+75	1395	77	+10	98	+5	MAP SRO Restr 3 ECU BOP 10/2022 Max fuel capacity 108 L
Mercedes	AMG GT4	1400	+45	1445	93	+10	96	+5	POWER LEVEL 3 ECU BOP 2020 Max fuel capacity 103 L
Ginetta	G56 GT4	1300	+5	1305	60	+10	60	+5	Restrictor 46 mm Max fuel capacity 103 L

Remarks:

- 1.1 Additional weight must be installed in accordance with GT4 Technical Regulations
- 1.2 Additional weight of driver cooling elements mentioned in the Repco Bathurst 12Hour Sporting and Technical regulations are integrated in the Final Weight.
- 1.3 Restrictors must be the homologated ones.
- 1.4 Use of catalytic converter compulsory
- 1.5 The SRO Sporting Board is allowed to modify any parameter required to establish the balance of performance and can change the BOP decisions for any car at any moment during the event.
- 1.6 Max camber for all cars static: Rear -3,5°
- 1,7 Turbo cars without adaptable pboost (Offset Pmap vs Patmo) , identified by * in the BOP sheet, need to add +10kg per 20 mbar ambient pressure delta under 1010mbar, this means + 10 kg at Patmo of 990mb, +20 kg at Patmo of 970 mbar and +30 kg at Patmo of 950 mbar
- 1,8 BMW M4 GT4 G82 adapt at Patmo via LT. Reference is 1000 mbar, -1 LT must be applied per -20 mbar Patmo, this means -1 LT at Patmo of 980mb, -2 LT at Patmo of 960 mbar and -3 LT at Patmo of 940 mbar