

# Cal Club Regional Class Western Touring Car Championship TC Class Technical Regulations 2025

## Mandated Western Touring Car Championship (TC Class) Vehicle Rules -

This one-class series allows many vehicle types to compete. Some vehicle changes (restrictor plates, ECU detuning, and/or weight ballast) may be required. Strict power-to-weight and tire-to-weight restrictions will be enforced.

Read carefully, as you will be required to calculate your vehicle's competitive balance in WTCC. Please contact WTCC staff if you have any questions regarding vehicle modifications and their legality.

### SAFETY

ALL WTCC competition vehicles must be prepared according to the safety rules identified in Section 9 of the current year's SCCA General Competition Rules (SCCA GCR). No exceptions.

### VEHICLE ELIGIBILITY

1. Vehicles in this category must be identifiable with vehicles offered for sale to the public and available through original equipment manufacturer distribution channels. Alternate cars (kit cars, tube-frame, etc) may be approved on a case-by-case basis.
2. Approved vehicles may or may not receive Competitive Balance Adjustments via additional ballast and/or classified as exhibition entries that are not eligible for points or contingencies.
3. Vehicles must adhere to all safety and conduct regulations for cars outlined in the SCCA GCR. ALL SCCA GCR rules for conduct, vehicle safety prep, etc., must be recognized and adhered to. Failure to do so may result in loss of track time or removal from the event.
4. All vehicles must have SCCA vehicle logbook.
5. For safety and classing parity reasons, a maximum competition weight is limited to 3600lbs
6. In the spirit of competition, WTCC invites select SCCA classes the ability to "double dip" into WTCC on SCCA weekends. To "double dip" in full "SCCA Class" spec, you must be entered in that SCCA class the same race weekend and run fully the SCCA class spec. WTCC Race Director can BOP accordingly.
  - a. Allowed SCCA classes- T4, SM, SMX, STL, HP, GTL, B-Spec. Other classes may be invited, based on class times.
  - b. SCCA-classed cars may run their allowed SCCA class tire specification OR WTCC tire specification.

### DRIVETRAIN

7. **ENGINE**
  - a. Engine swaps are open but must be located in the approximate location as the original engine.
  - b. Forced induction may be added to any vehicle. Cars already with forced induction may use alternate exhaust manifolds, piping, intercoolers, turbos and superchargers. Engines with 8 cylinders or more are not allowed to add boost. Boost by gear is not allowed unless a factory ECU is used and cannot be disabled.
  - c. All other internal engine mods and bolt-on components are unrestricted but are subject to dyno rules.
  - d. Engine management and ignition components are unrestricted on naturally aspirated or forced induction engines.
  - e. Nitrous oxide, nitromethane, or other chemicals that increase power are prohibited. 110 octane race fuel or lower is acceptable.

- f. Exhaust must exit past in a safe location out of or under the car, and exhaust systems and gasses must not be able to harm other cars in close-quarters racing (cannot protrude in a harmful way or aim potentially directly at an open window of fellow driver). Please be aware of sound decibel restrictions at certain tracks. If the track deems a car too loud to compete, modifications to comply with track wishes on sound level must be made, or the entry to the event will be forfeited.
- g. Adjustments to the ECU, boost limit, rev limit or any other method to adjust hp readings before, during or after a session to cheat the HP numbers is not allowed and will be strictly enforced. An ECU map that can be changed while driving or while on dyno by driver/crew with the purposes of manipulation of the hp/weight goals of the class is considered unsportsmanlike conduct and will result in loss of track/competition time, and all the benefits that go along with racing. Tune-altering switches/mechanisms must be out of driver reach and declared in location to scrutineers. Special scrutineering attention will be placed on cars with variable tune levels, and ECU internals or software may be inspected. If featuring a variable tune, be prepared to explain or exhibit all aspects of the programming or electrical layout of ECU/switch/altering mechanism to scrutineering. Failure to be able to satisfy scrutineering requests for this information may result in loss of finishing position.
- h. If illegal tune/power levels are suspected, Data Boxes will be used to compare acceleration rates. If an illegal tune is found to be used (higher boost and power levels, etc) on track, **the vehicle, the team owner, and the driver will be banned from future competition.** All past wins will be deleted from the record. Any contingency or prizing earned will be returned and redistributed as deemed fairly by WTCC staff.

#### 8. TRANSMISSION

- a. Driven wheels cannot be altered. AWD to RWD conversions are allowed if the vehicle in question was offered as multiple drivetrain variants, and conversion is using all OEM parts to accomplish (ie AWD BMW changed to OEM RWD BMW).
- b. Transmission ratios and transmission swaps are unrestricted for H-pattern transmissions (see modifiers for dog engagement gears).
- c. OEM PDK/DSG/DCT transmissions are allowed but only with vehicles fitted with those transmissions from the factory. You may swap to an H-pattern transmission if your car came factory with a PDK/DSG. If PDK/DSG/DCT/Automatic of 6 or more speeds is used, the internals must remain OEM besides LSD. No changes to the final drive ratio or gears are allowed.

#### 9. WHEELS

- a. Wheels are unrestricted but must be aluminum alloy or steel. Magnesium or carbon fiber are not allowed.
- b. Wheels with spokes that extend past the rim (such as Advanti Storm or Konig Dial-In) are not allowed due to any potential wheel-to-wheel contact causing significant damage.

#### 10. BRAKES

- a. Brakes are unrestricted in size and piston count but must be of ferrous rotor face material (aluminum, etc. rotor hats are permitted).
- b. ABS swaps or additions are allowed, but the ABS unit must be sourced from a factory-assembled vehicle. Bosch Motorsports-based units (or similar) are not allowed, even when sold in OEM cars such as Ferrari 458, etc.

### BODY

#### 11. SILHOUETTE

- a. OEM ROOFLINE and pillars must be maintained on all non-convertibles.
- b. If converting from a series that allows roof/windshield removal, a windshield must be added and approval must have been granted by WTCC Staff prior to event.
- c. Hardtops for convertibles are required but unrestricted.

#### 12. FENDERS

- a. Fenders and quarter panels must completely cover the entire tire tread when viewed from above.
- b. Fenders must maintain similar-to-OEM fender opening shape and height when viewed from the side.

- c. One vent or louver above the tire per side with an area of 45 square inches or less is allowed.
- d. Cutting the bottom of the fender behind the wheel and pushing inward to relieve pressure is allowed.
- e. Fender, fender flares, wide-body additions, and materials are unrestricted as long as the above conditions are met and do not provide a substantial increase in downforce in addition to what is allowed (judged by WTCC Technical staff).

### **13. DOORS/MIRRORS**

- 1. Standard door shape must be maintained, and doors must be able to be opened from the outside and inside.
- 2. Rear flares that extend onto rear doors are allowed but all doors must be able to open.
- 3. Mirrors are unrestricted but at least two are required inside or outside the body.

### **14. FRONT & REAR BUMPERS**

- a. Front and rear bumpers are unrestricted as long as they do not provide a substantial increase in downforce. No elements that include winglets, canards, diffusers, etc. Bumper lips that provide a canard-like effect, are not allowed without 1%.
- b. Front bumpers that try to exploit the splitter 3" rule will not be allowed (judged by WTCC Technical staff).
- c. Any front bumper or lip (OEM or aftermarket) that resembles a splitter regardless of size will be classified as a Front Splitter and take the splitter adjustment. OEM lip/appearance packages may be allowed but must be verified by WTCC tech to assess no competition balance. In instances where an allowed undertray shares a horizontal surface structure with an air or radiator intake (protruding as a splitter or NOT), this will be deemed to be functioning as a splitter and given the corresponding modifier.
- d. It is highly recommended to keep the OEM bumper/crash beam with any additional supporting structure underneath the bumpers on both the front and rear of the vehicle.
- e. Full-face air dams are allowed but must be vertical and sufficiently mounted/supported to not deflect at speed.
- f. Tire spats mounted to the back side of the front bumper, directly in front of the wheel, with the sole purpose of directing airflow around the tires are allowed but must follow the shape of the bumper/fender and not extend past the tire or wheel with the wheel pointing straight when looking from the front.
- g. All vehicles must have a tow hook(s) or strap(s), capable of towing or moving the car from the front or rear of the vehicle. These devices must not protrude from the bumper or vehicle in such a way as to potentially damage or "hook" another vehicle in an incident that would otherwise result in no damage, such as a bump draft.

### **15. LIGHTING**

- a. Headlights are unrestricted but adequate forward-facing lights are mandatory for any race near dusk or night. OEM headlights are acceptable as a minimum. The use of LED light bars to substitute OEM lights and/or supplement OEM lights is recommended. When additional lighting is added, please consider the impact it may have to the driver ahead of you. Lights must be aimed horizontally or lower to prevent blinding your competitors.
- b. Brake lights are unrestricted but at least two (operable) are required. Racing without operable brake lights could result in a penalty or DQ.
- c. Rear running lights are MANDATORY during any dusk/night races and any races in damp/wet conditions.
- d. Rain lights (rear-facing, brighter than running lights, and flashing during races) are required for rain conditions for all competitors in any inclement conditions. Failure to have a rain light may potentially result in the revoking of race privileges if rain is deemed hard enough for lack of light to be a safety hazard. It is recommended that rain lights be mounted in such a way to be in the natural field of vision for drivers following.
- e. Headlights/forward-facing lights must be on in rain or inclement weather.
- f. If any of the above lighting conditions are not met, competitors may not be allowed to grid and start the race.

### **16. SIDE SKIRTS**

- a. The majority of the side skirts must be below the bottom of the door and may not extend further outward of the front or rear tires.

- b. Horizontal portions of side skirts may not exceed 5" (in any horizontal location, bottom side, topside, etc).
- c. Sliding skirts, which seal the gap between the sides of the car and the ground, are not allowed.
- d. Side Skirts must be adequately attached to the car to not easily fall off (double-sided tape is not adequate attachment).

#### 17. HOOD & TRUNK

- a. Hoods are unrestricted in shape and design and addition/subtraction of vents, etc, but must be largely similar to the original fitment/design of the vehicle hood.
- b. Trunks are unrestricted as long as the original OEM shape is maintained.

#### 18. GLASS

- a. Glass may be replaced with Lexan or polycarbonate variants such as Makrolon. The front windshield must be at least ¼" thick and all others at least 1/8" thick.
- b. Driver and passenger front windows must be down and preferably removed. Sunroofs may be retained if not made of glass or removed. If removed, openings must be covered with an adequate panel of quality construction (aluminum, carbon fiber, or steel).
- c. Alternate materials for the windshield cowl are allowed but the cowl must maintain the original OEM shape. Wipers are free. No custom hood-to-windshield smooth blend panels are allowed.

#### 19. SPLITTER(S)

- a. Splitters are allowed. You must take the modifier if an undertray shares a horizontal surface structure with an air or radiator intake (whether protruding as a splitter or not) without a vertical element on the forward-facing exposed undertray or the presence of any non-OEM upper horizontal surface is exposed to airflow, regardless of protrusion from or location in the front fascia (Example: Flat section "floor" in front of radiator.).
- b. The splitter blade may extend up to 3" past the vertical backing surface where the horizontal exposed splitter blade meets said vertical surface (air dam, lip, etc). The 3" allowance will be measured perpendicularly at all points of the leading edge around the entire vertical surface. The first VERTICAL surface begins the measurement of 3" outward. The "edge" of a "lip" that is not a smoothed ramp is accepted as a vertical surface. "Edge" must be ⅜" or more to be considered the vertical surface.
- c. The blade may not extend further rearward than the front hub centerline.
- d. The blade may be no wider than the tires (primary dry wheel/tire setup of an individual vehicle) when pointing forward.
- e. The entire blade must be flat-bottomed and horizontal with a +/- 5-degree AOA allowance.
- f. Splitter support rods on the outside of the bumper are allowed and unrestricted as long as the only purpose is to support the blade.
- g. Splitter rub devices such as titanium pucks, plastic pads, etc. on the bottom of the blade are allowed.
- h. No additional vertical or aerodynamic advantageous devices are allowed on the blade such as winglets, diffusers, scoops, ducts, etc.
- i. If splitters are found to be out of spec, the competitor will be disqualified. A (post-race) exception may be made for out-of-spec splitters only if damage occurred to the bumper and/or splitter, which affected the measurement. It will be up to the WTCC Race Director to decide on these matters.
- j. Undertray pieces, OEM or fabricated, are allowed if a splitter is not utilized, but must follow the rules above for splitters.

#### 20. WING OR SPOILER

- a. A rear aero device, OEM or aftermarket is allowed.
- b. Calculate the surface area of the wing/spoiler chosen, and see the table for appropriate modifiers.
- c. Only one aerodynamic element such as a wing or spoiler is allowed. The only exception to this is OEM hatchback spoilers which are utilized to mount wing brackets, are not considered an aero device. These hatchback scenario "spoilers" shall have no non-OEM elements and be smooth to the profile of the roof.
- d. A dual-element wing is illegal, and a single-element wing with a trunk-mounted spoiler is illegal.

- e. Entire assembly (including endplates, and wing mounts) may not extend more than 5" past the most rearward part of the rear bumper when looking from above.
- f. Any part of a wing mount sitting low enough to be a potential point of contact for a bumper of another car shall be a smoothed and flat contact patch, similar to the bumper it is in front of. The object of this is to prevent accidental spins in the case of close-quarters racing with minor contact.
- g. There are no height restrictions.
- h. Each wing endplate is unrestricted, however, should not exist in space that causes potential contact to cars during close-quarters racing. Wings causing potential or actual contact problems will be asked to be removed.
- i. Gurney flaps are allowed.
- j. Active aero is not allowed.
- k. "3D" wings are allowed but may only be a maximum of 61" wide. 3D wings must be production units from name brands (APR, Voltex, etc.). Other units may be allowed, case-by-case.

## 21. MISC AERODYNAMICS

- a. Any aerodynamic elements or additions (besides splitters, wings, side skirts and approved vents defined in sections above) that may increase downforce or reduce drag such as winglets, dive planes, canards, diffusers, vortex generators, flat floors, tunnels, wheel arch covers, tail extensions, etc. are not allowed.
- b. Any movable-during-race or active aerodynamic device is not allowed.
- c. A good rule of thumb regarding any aero device is, if the rules don't specifically state you are allowed to do so, then you cannot. If clarification is needed, or to request additional details, please consult the WTCC Technical staff. Alterations may potentially be made as a result.
- d. Any obvious exploitation of the bodywork rules or unforeseen wording loopholes may be immediately banned and addressed in the rule book. It will be required to remove the device on the spot. **Twisting** of the rules for the sake of advantage, in any way, is not allowed. Please contact WTCC for clarification, pre-event, on the items in question. Parity is the goal, not rules gamesmanship.
- e. If uncertain of an item's legality, please consult with WTCC.

## CHASSIS

### 22. UNIBODY/FRAME

- a. No major modifications are allowed to the chassis, frame, unibody, floor, firewall, etc. unless clearance is required (must not benefit performance in any way), or strengthening/bracing is needed. Non-essential body/unibody items and trim may be removed for the purposes of weight reduction.
- b. Major unibody (or frame for non-unibody cars) structural items may not be compromised or lightened. Material may be added to reinforce problem areas or known weak areas on the chassis or repair crash damage, but full reconfiguration, "tube frame conversion", to structural areas of unibody cars is not permitted.
- c. Areas of vehicle modified on a unibody car, in compliance of another, or previous, racing class the vehicle competed in, may be grandfathered into allowance on that chassis only, on a case-by-case basis. Email WTCC technical staff for feedback. The modification in question must be deemed non-advantageous.
- d. Radiator supports may be replaced with fabricated items for purposes of fitment or repair to the chassis area, but the general location of the radiator must not be altered from the factory location, and air for cooling of the radiator must flow from the general location air entered the car to cool it originally, in the front of the vehicle for most cars. Blocking off bumper and cooling locations is allowed, provided the openings are left large enough to still supply all air needed to cool the vehicle's powerplant.
- e. Clearance for tires/suspension arms in wheel/tub areas may be done with fabricated modifications but must offer no other performance benefits except wheel and tire fitment or suspension travel to prevent bottoming out of arms/tires.

### 23. SUSPENSION

- a. Chassis suspension locating points may not be altered or modified. Reinforcement of pickup points for longevity purposes is allowed, as is seam welding, but location shall not be changed from the location on vehicle when originally produced at the factory of origin. In the case of live/solid axle RWD vehicles, suspension pickup points may be added to facilitate converting to an alternate axle locating method style (watts link, four-link, Panhard

bar, etc), and alternate spring/shock mounts may be used. Making “cambering” modifications to solid rear axles is allowed. In cases of OEM solid/live axle(rear) vehicles, independent rear suspension systems from other vehicles/manufacturers may be swapped in if they are a “full subframe” type swap, where all suspension locating points are original to the donor vehicle (ie, an entire rear subframe/suspension from a Miata, or 350z, may be swapped into, with necessary fabricated modifications, a solid axle car/chassis). The donor vehicle must be a mass-produced road-going vehicle with no race-only/aftermarket suspension geometry. All other suspension rules must be applied as if the suspension was originally installed into the live axle vehicle from the factory of origin (no pickup point modification, etc).

- b. Alternate front and rear subframes are allowed but only under the following circumstances;
  - a. Similar OEM subframes from the same manufacturer that do not alter suspension locating points. For example, EG/DC subframe in an EK.
  - b. Aftermarket subframe swaps are allowed only for the purpose of facilitating engine swaps, and when suspension pickup points are not altered. For example, the KMiatas K20/K24 Miata swap package.
  - c. Subframe swaps or custom subframes for the purpose of reducing weight are specifically prohibited. Custom subframes for obscure engine swaps are allowed, but weight must be within 10% of the factory piece it replaces if less than OEM, and documented with pictures/scales.
- c. Suspension components such as control arms, uprights, knuckles, hubs, trailing arms, etc may be altered, modified, or replaced, for the addition/modification of camber or caster or for repair purposes to return to pre-damaged condition/strength. Uprights, knuckles, and control arms that bolt on without modification may be used. Hubs are free and may be swapped to aftermarket or otherwise for strength purposes. Aftermarket components for suspension arms that utilize OEM points of contact to chassis and knuckle/hub/carrier pieces are allowed.
- d. Bushings, ball joints, and suspension geometry correction kits are unrestricted.
- e. Suspension valving adjusters shall be limited to 3 adjustments per corner.
- f. Shock “pots” /ride height sensors/sensors providing suspension data are forbidden in this class. Suspension must be fully mechanical in adjustment. Cameras on suspension are allowed.
- g. All fluid-carrying lines must be secured in such a way that no abrasion occurs to the line. Lines must be adequately chosen for their job in pressure and fluid type ratings, and it is recommended that at all mounting/anti-abrasion points the lines are insulated from fasteners/zip ties with an anti-abrasion sleeve of some sort.

## **VEHICLE APPEARANCE**

### **24. “TOURING CAR” RADNESS**

- a. WTCC strongly encourages competitors to maximize the “COOL RACE LOOK” on their cars, meaning, to stand out from the rest of the crowd and try to maintain a professionally presented vehicle.
- b. Unique builds and well-executed vehicle & driver themes will be rewarded with more visibility both on and off track.
- c. When designing a livery and placing sponsored logos and decals, potential in-car cameras should be considered for optimal placement.

### **25. DAMAGE**

- a. Cars are not required to be “spotless” or “perfect”, but any major bodywork damage must be repaired. Remember “50 feet and 50mph” is the yardstick.
- b. Any major damage that occurs during an event must be repaired/secured to the best of the competitor’s ability before taking to the track for the next session/race.

### **26. NUMBERS, & DECAL REQUIREMENTS**

- a. Numbers shall be placed on the front and both sides of the car so that they are legible. Numbers may be 1, 2 or 3 digits. Class letters “TC” shall be placed on both sides of the car so that they are legible. Rear numbers and class letters are recommended. The numeral “1” shall be exclusively reserved for the current WTCC champion. Duplicate car numbers within the same run group is prohibited.
- b. Numbers shall be at least 8 inches high, with a 1.5 inch stroke on a contrasting background. Metallic (reflective) numbers and class letters are prohibited. The distance between 2 numbers shall be at least as wide as the stroke of the numbers. Class letters shall be at least 4 inches high, with a 1/2 inch stroke on a contrasting background. If using a WTCC number board, a minimum 6” tall number is required. Front/hood numbers may be 6” tall.

- c. All cars shall display the correct minimum weight and Comp HP specified on their Comp form in a manner that is clearly legible to the scrutineers at the scales. Any car required to run a restrictor must display the restrictor size and type in a manner that is clearly legible to the scrutineers.
- d. Driver's name displayed on the quarter glass, roof or front windshield is recommended.
- e. All WTCC and SCCA required and mandated decals must be present on the vehicle throughout the race weekend. They must be applied to the exterior of the vehicle. SCCA and WTCC driver suit patches are requested.
- f. Timing and Scoring reserves the right to ask a driver to change numbers.
- g. The scrutineering team reserves the right to impound vehicles for any length of time deemed needed to determine compliance and the right to scrutinize vehicles overnight, with or without the assistance or presence of owners/drivers. Every effort will be made to return the vehicle to the owner/driver with the vehicle in race-ready or as-received condition. Assistance in mechanical inspection may be requested of vehicle owner/driver/crew.

## **SCRUTINEERING**

### **27. SCALES**

- a. All competitors are required to calculate their Comp Weight. At no time can a competitor run under their calculated minimum weight.
- b. Comp Weight includes driver, fuel and fluids and is usually measured immediately after a race.
- c. Scales will be available to competitors only, free of charge, at all SCCA/WTCC events.
- d. Top 3 finishers or more, at race director's choice, may be sent directly to the scales immediately after a race where the weight will be measured. Tampering with weight and attempting to cheat scales will result in penalties.
- e. Scales will have a +/-0 tolerance at all events unless specified otherwise. It is recommended to scale the car before any critical session to calibrate min. weight to the scales at that event. Once weighing has begun for a weekend, scale locations will be marked on the ground if mobile scales are used, to keep position and eliminate variables.
- f. If a competitor ends up under minimum comp weight in impound, they have the right to be pushed off the scales, zero the scales, and reweigh. If still under minimum comp weight they will be disqualified from the previous race, and may be required to start from the back of the field for the next race.

### **28. DYNO**

- a. All competing vehicles need to be dynoed to determine Comp HP which is peak WHP. Dyno sheets and submitted competition forms are a requirement as it is the method used to declare legality and relatively equal cars racing fairly are a core objective of the series.
- b. Comp HP may be equal to actual peak WHP but it is recommended to be greater to give you a safety cushion if you get dynoed at an event. It is recommended to claim 3 to 4 percent above actual dyno results to provide a safety cushion for tech.
- c. Comp HP needs to be certified on a WTCC-accepted dyno every two years or whenever changes are made to the car that can alter peak WHP. WTCC will accept dyno results obtained on "DynoJet" brand dyno. A vehicle's Comp HP number cannot be lowered unless recertified on an accepted dyno. Competitors must have an electronic or physical copy of the dyno plot.
- d. A WTCC-provided dyno will be available to all competitors when possible and use of dyno will be offered at lowest possible price, for testing/recalibration of cars. WTCC has the right to refuse or approve results from any non-approved dyno.
- e. Check with WTCC staff on how to submit competition forms before each event. Any confusion, please email [tech@jacksonracing.com](mailto:tech@jacksonracing.com), or see staff at the event upon arrival.
- f. Suspected manipulation of dynos will be accompanied by a data box being placed in the vehicle and acceleration numbers watched. Vehicles may be asked to confirm or replace the dyno numbers with more accurate data before the next race. Disqualification may result from data box findings in this situation if the acceleration rate is deemed illegal. Dyno curves on submitted competition forms shall roughly reflect the actual day of results. If curves are drastically different than the submitted curves, further inspection and scrutineering of ECU programming will be required, and a resubmission of the comp form must be done, with new dyno results, if the car is deemed compliant.
- g. Race winners, random competitors or suspect vehicles may be chosen after races to verify Comp HP and/or vehicle weight.
- h. WTCC Race Director may instruct staff to send a car for WTCC inspection or the Dyno or both. Once a car is designated for scrutineering/impounding that vehicle may not be worked on by driver or crew before release from impound. If a car fails mechanically before inspection is complete, that car may be disqualified. Repairs before or during scrutineering may only be performed with approval from race director. No "plugging in" or "diagnostic work" may be done with computers or scanning equipment. Fueling prior to dyno is not allowed unless approved by race director.

- i. **Dyno Procedure:**
  - a. Be sure the vehicle can be strapped to the dyno easily without obstruction. Remove low splitters.
  - b. Engine must be at operating temperature. Dyno operators or WTCC staff are the only people who can determine fan placement on dyno. Efforts will be aimed towards cooling and simulate airflow at speed.
  - c. Hood closed and tires at 35 psi, gear closest to 1:1 shall be used
  - d. SAE Correction J1349 for the Dynojet Dynamometer must be used.
  - e. 3 pulls shall be performed in rapid succession from a low rpm up to redline limiter. If the last pull is +3 hp over the previous, additional pulls will be made until the difference is under 3 hp. Ex: pull 1 (185 hp), pull 2 (190 hp), pull 3 (195 hp), pull 4 (199 hp), pull 5 (201 hp), done.
  - f. The highest recorded hp from all pulls is selected and will be used to verify Competition HP.
- j. **Non-Compliance Dyno Result**
  - a. In all cases, before a Dyno compliance check, the competitor will be weighed before being sent to the dyno and that weight will be recorded as race weight.
  - b. If a dyno compliance check results in WHP higher than your stated competition horsepower, you will be disqualified and moved to the back for the next race.
  - c. In the event an impounded vehicle on the dyno is having engine trouble/oil pressure issues, or other mechanical problems, it may be disqualified depending on the results of the dyno (if a dyno pull is made). If a vehicle is too troubled to safely run on the dyno post-race, and is called to dyno impound, it may be disqualified.
- k. **Post-Race Dyno Impound**
  - a. Dyno impound will be reserved for cars suspected of pushing the allowed boundaries of the class and shall be used only at the request of the WTCC Race Director. If sent to impound, the driver and car shall be allowed 15 minutes for vehicle to cool down from time entering pits in an effort to recreate most dyno sessions in which the dyno number for submission originally is created. At 15 minutes the car will be pulled onto the dyno and strapped down.
  - b. Vehicles must have the ability to restart on their own, as this is deemed to be a safety hazard on track during a race if unable. Allowances will be made if the alternator died during the race, or the power cable with an obvious break is witnessed. Vehicles should have adequate fans to allow them to idle to cool down, adequate batteries for the needs of the vehicle, and batteries in excellent condition.
  - c. The highest HP pull of 3 impound runs will be selected. If the car is over its stated wheel horsepower, or HP allowed for weight if carrying buffer weight as insurance, the following shall be the result:
    - 1. **1-2 WHP over claimed HP:** Finishing position moved back 10 spots. (If before invert, invert, then move back 10 spots.)
    - 2. **3-5 WHP over claimed HP:** Points removed for race, and the start of the next race shall be 15 spots from the would-be-position. The car must be made legal based on dyno results. (If before invert, invert, then move back 15 spots.)
    - 3. **5+ WHP over claimed HP:** Full DQ. Start from the back in the next race. The car must be made legal based on dyno results.
- l. Engine replacements (only due to failure of the original engine) during race weekends, where it is not possible to "re-dyno" the car, are allowed to continue racing under the original dyno submission ONLY with the permission of the Race Director. Engines must be the same spec as the engine they replace, or lesser. In these rare situations, WTCC will place a Data box in the car (or claim data if the car features an adequate system) for all sessions/races following the swap. Data will be compared to previous sessions of the car, and/or known compliant cars, and acceleration data will be used as the judgment as to whether the car is compliant. If acceleration data is suspect in ANY WAY in regards to the car not being compliant in horsepower to weight, the Race Director MUST disqualify the car. Data must show, unequivocally, the car to be compliant, or it MUST be deemed non-compliant. This special case data is open to display to competitors upon request at the convenience of the technical staff.

Competitors must submit their Competition Sheets and Dyno Sheets via email to [tech@jacksonracing.com](mailto:tech@jacksonracing.com) at least one week before their first event of the season. Any changes require resubmission. No changes can be made during a race weekend to the competition sheet declared horsepower and minimum comp weight unless approved by WTCC staff. Approvals will be case-by-case, typically due to hardship.

Minimum comp weight is measured post-race in SCCA tech on SCCA scales with the driver.

**COMPETITION WEIGHT**

To calculate competition weight:

Competition Weight = (Competition HP / 0.08 ) x (Competition % Balance)

**COMPETITION WEIGHT INCLUDES DRIVER POST-RACE, IN IMPOUND.**

**COMPETITION HORSEPOWER (HP)**

Comp HP is determined on an approved dyno (DynoJet) using peak WHP. Comp % balances are added to equalize engines with greater torque and/or flatter hp curves and may be adjusted as data is obtained.

<b>Table of Competition Balance - Engine Displacement, Other</b>		
<b>COMPETITION BALANCE</b>	<b>DETAILS</b>	
<b>NOTE:</b> Engines with a spec line are only to take said percentage, not CC % in addition		
Sub 2.0L	-1.5%	Displacement < 1,999 cc (Including 2 Rotor Engines)
2.0-2.5L	-1%	1,999cc Displacement to 2525cc
2.5-2.9L	0%	2526cc Displacement to 2900cc
2.9-3.5L	1%	2901cc Displacement to 3500cc
3.5-4.5L	3%	3501cc Displacement to 4500cc
4.5-5.3L	4%	4501cc Displacement 5350cc
5.3L+	6%	Displacement ≥ 5351 cc
Detune/flat powerband	0-4%	Powerbands detuned/flattened to meet peak allowance, or enhanced broadly with forced induction (“flat”). At 1000RPM of flat (first 999 is free), add 1%, at 2000RPM of flat, add 2%, 3000RPM=3%, 4000RPM= add 4%. This percentage is in ADDITION to the above percentages for engine. Comparison to a “full effort” tune on any given engine is helpful in determining this percentage. See staff for assistance if needed, or email WTCC Staff. A calculator will be available on WTCC website.
<b>FORCED INDUCTION</b>		
Forced Induction	0%	Any engine using forced induction. V8s are not allowed FI.

<b>Table of Competition Balance - Aerodynamics</b>		
<b>COMPETITION BALANCE</b>	<b>DETAILS</b>	
Front Aerodynamic Device (Splitter)	+3%	Splitter blade may extend up to 3” past the vertical backing surface where the horizontal exposed splitter blade meets said vertical surface (air dam, lip, etc). Splitter cannot extend further rearward than the front hubs centerline and no wider than the tires when pointing forward. Must be flat bottomed and horizontal with a +/- 5-degree AOA allowance. Check below for more details.
Rear Aerodynamic Device (Wing <b>or</b> Spoiler) -LARGE	+3%	Any rear aero device of single element design between 500in <sup>2</sup> and 701in <sup>2</sup> (element maximal length multiplied by the element maximal chord length, or an area calculation, as close as possible, of a spoiler where air passes over and not around device).
Rear Aerodynamic Device (Wing <b>or</b> Spoiler)-MEDIUM	+2%	Any rear aero device of single element design between 251in <sup>2</sup> and 499in <sup>2</sup> (element maximal length multiplied by the element maximal chord length, or an area calculation, as close as possible, of a spoiler where air passes over and not around device).

<b>OR</b>		
SPLITTER AND WING choice	+4%	Splitter AND <b>LARGE</b> allowed wing = 5% total
SPLITTER AND WING choice	+3%	Splitter AND <b>MEDIUM</b> allowed wing = 4% total
OEM Canard OR dive plane-like lips	+1%	S2000 CR lip and similar judged to be “effective”, and subject to modifier. Similar, yet unspecified, OEM bumper add-on pieces may be subject on a case-by-case basis.

<b>Table of Competition Balance - Drivetrain Layout</b>		
<b>COMPETITION BALANCE</b>		<b>DETAILS</b>
FWD	-1%	Select for FWD cars.
Sequential aftermarket or motorcycle drivetrain	+4%	Aftermarket/motorcycle sequential transmissions assessed weight penalty because of ideal gearing choices and speed of shift afforded. Modifier percentage subject to change at any time and for individual cars, if needed
PDK/DSG/DCT /automatic of 6 or more speeds.	+2%	PDK/DSG/DCT/auto of 6 or more speeds transmissions. Internal gearing must remain OEM besides LSD.
Dogbox Transmissions	+2%	Aftermarket "Dog engagement" gear transmissions, lever shifted, assessed weight penalty because of ideal gearing choices and speed of shift afforded. If more than two forward gears are “Dog Engagement” style, aftermarket or modified OEM gears, this modifier applies.
NON ABS	-2%	Allowance when a vehicle is not equipped with ABS (anti-lock braking system). Removal of systems not recommended.
16" wheels or less	-3%	If smaller diameter wheels/tires are utilized, must be on all 4 wheels.

<b>Table of Competition Balance - Miscellaneous</b>		
<b>This table includes specific engines or chassis that prove to have a significant performance advantage over the competition or alternative modifications over the limits for the sole purpose of out-of-class vehicle eligibility. Competition balance may be adjusted if needed.</b>		
<b>COMPETITION BALANCE</b>		<b>DETAILS</b>
Elise/Exige (All years)	+0.25%	Adjustment because of the OEM flat floor and rear diffuser. No alterations are allowed.
SCCA Class		Placeholder
Tube Frame	+3%	Race cars that are partially, or entirely tube frame are allowed as long as the body resembles a production based vehicle. This adjustment may only be used by vehicles specifically prepared (previously or currently) for other sanctioning bodies and must provide proof. Requires prior approval. Submit vehicle's build and race history. OEM produced chassis that do not meet the “VIN” production rule may be placed into this category if it cannot be shown that they utilize all factory pickup points on chassis and offer no significant advantage (former factory race cars from various “pro” sanctioning bodies).

## **TIRE SELECTION**

### **29. TIRES**

- a. WTCC operates as a 200TW race class. Select Tire in the table below first. Only tires listed in the table are allowed.
- b. Average size of tires on tire stagger: If the average size of a front and rear tire is equal to or lesser than the allowed size, that is within the rule specification. It is only allowed to go UP 40mm in allowed size from the base allowed size, and you may undersize at will, resulting in an average or less of allowed size. (Example: if a "245" is a vehicle max size based on weight, it may run a 285 front, or back, and a 205 or smaller on the opposite axle)
- c. Smaller tire than the maximum allowed: If the average tire size utilized on the car is smaller than the maximum allowed tire width per minimum comp weight and comp form, a -1% modifier is allowed.
- d. Tire shaving is allowed.
- e. In any single-timed session (races, qualifying events, shootout events) tires may not be shared between competitors.
- f. Tire warmers, warming, or heat retention covers may not be used.

**NOTE:** Tires may be added or removed from the allowed list, or assessed a maximum size, as the tire market is constantly changing. As new models come to market, or to add potential tires, testing will be conducted. Regular WTCC drivers will be polled before changes, if changes are to be made. One potential tire addition or subtraction time per year will be allowed, with advanced notice. Changes are highly unlikely, however, once the allowed tires are chosen.

<b>Table of Competition Balance - Tire Allowance</b>		
<b>COMPETITION BALANCE</b>		<b>DETAILS</b>
<b>Allowed Tires</b>		Kumho v730 Falken 200+TW Maxxis 200+ TW Continental 200+TW Michelin SC2 Connect240 and PS4S BFG 200+TW Nexen 200+TW Goodyear 200+TW SuperCar3 Dunlop 200+TW GT Radial 200+TW Toyo R1R, RA1, R888R
<b>Tire w/ Modifier</b>	3%	Nexen 200+TW
<b>Less than Max Width Allowed</b>	-1%	<b>See c above.</b>

<b>Maximum Allowed Tire Width per Minimum Weight (as Marked on Tire)</b>	
2725 lbs or less lbs	245
2726lbs-2850 lbs	255
2851lbs-2975lbs	265
2976 lbs-3150 lbs	275
3151 lbs-3300lbs	285
3301+ lbs	295