



NASA Time Trial Car Classification Form (TTA-TTF)--2009 (v6.1)

Owner's Name _____ Date _____ Region _____

Car Number _____ Car Color _____ e-mail _____

List all Team Drivers--leave blank if the owner is the only driver and circle here: owner-driver

Vehicle: Year _____ Make _____ Model _____ Special Edition? _____

NASA TT Base Class _____ Base Weight Listing (from TT Rules) _____ lbs.

Min. Competition Wt. (w/driver) _____ lbs.

Only complete this section if the vehicle has been re-classed by the National TT Director:

All of these cars **MUST** be assessed by the National TT Director for re-classification into a new TT Base Class! Motor Swap, Aftermarket Forced Induction, Modified Turbo/Supercharger, Aftermarket Head(s), Increased Number of Camshafts, Hybrid Engine, Ported Rotary motors, others (see TT Rules sections 6.4.1 and 6.4.2) (e-mail the below information to the National TT Director at greg@nasa-tt.com to receive your new Base Class)

Engine: OEM Displacement _____ OEM Horsepower _____ hp
Engine Swap? No Yes Donor Vehicle: Yr. _____ Make _____ Model _____
Swap Disp. _____ Swap h.p. _____ hp Current (min. comp.) Weight _____ Current Dyno whp _____ hp

New TT Base Class Assigned by the National TT Director: _____ (Keep a copy of the e-mail in the car as proof.)
For cars classed based on dyno numbers: Maximum allowed whp _____ hp Min. Comp. Weight _____ lbs

Note: Any car exceeding the Adjusted Wt./Power Ratio limit for its class will automatically move up to the next highest class that it is legal for. (see TT Rules Sections 6.1 and 6.2).

Proceed to calculate your vehicle's modification points assessment for up-classing purposes. Fill in the blanks with the number of modification points assessed for each item that affects your vehicle. You may leave the lines blank next to modifications that your vehicle does not have. Proceed to Page 2, and calculate all modification points' assessments, then fill in total points below. **ALL Factory Options and Parts Not on the Base Trim Model Must Be Assessed Points!!!**

_____ Total Number of Modification Points from assessments on Pages 2-5

_____ Total Number of Points from * (+7) or ** (+14) (from base classing)

_____ All Forced Induction Vehicles Add Five (5) Points (unless re-classed by Dyno testing)

Total Modification Points for Up-classing

- | | |
|--------------------------------------|--|
| 20 thru 39 points - Up ONE Class | 100 thru 119 points - Up FIVE Classes |
| 40 thru 59 points - Up TWO Classes | 120 thru 139 points - Up SIX Classes |
| 60 thru 79 points - Up THREE Classes | 140 thru 159 points - Up SEVEN Classes |
| 80 thru 99 points - Up FOUR Classes | 160 thru 179 points - Up EIGHT Classes |

Base Class: TT _____

Final Competition Class: TT _____

For purposes of NASA TT points assessments, the term OEM will be defined as follows: Any part that is identical in size, shape, and functional characteristics compared to the part that originally came on the vehicle, from the manufacturer, as a standard feature of the base model as it is listed in section 6.3 Base Classifications (factory options and specialty model parts are considered non-OEM) or is listed as a standard replacement part by the OEM manufacturer. Some parts that are produced by aftermarket manufacturers as generic replacement parts may not require a points assessment provided that: they are the same size and shape, and have the same functional characteristics as the OEM part, and that they provide no significant improvement in performance, longevity, or reliability. If you have any questions about the modification points, consult your TT Director. Errors and omissions could result in disqualification and other penalties.

Points

TIRES:

- _____ 1) DOT-approved R-compound tires with a UTQG treadwear rating of 40 or less (ex. BFG R1, Hankook Z214, Hoosier R6 & A6, Kumho V710, etc.—note: G.A. Cup and Viper R.L. Hoosiers OK) +10
- _____ 2) DOT-approved R-compound tires with a UTQG treadwear rating of 50 to 130 (ex. Kumho V700, Michelin Pilot Sport Cup, Nitto NT01, Pirelli PZero Corsa, Toyo R888, Yokohama A048, etc.— note: see exception below in 3)) +7
- _____ 3) Toyo RA-1 and Nitto NT555RII +5
- _____ 4) Non-DOT-approved racing slicks +30 (of any origin—re-caps and re-treads are not permitted)
- _____ 5) The following tire sizes will be used as the base tire size for each **Base Class** for all vehicles regardless of their OEM tire size(s). All vehicles in a given base class may use this tire size (or smaller) without a points assessment:
TTA: 295 mm, TTB: 265mm, TTC: 255mm, TTD: 245mm, TTE: 235mm, TTF: 215mm, TTG: 195mm, TTH: 175mm

Tire width points assessed or points credited are determined by the difference between the width of the **largest tire** on the vehicle and the assigned base tire size as follows:

Equal to or greater than: 10mm +1, 20mm +4, 30mm +7, 40mm +10, 50mm +13, 60mm +16, 70mm +19, 80mm +22, 90mm +25, 100mm +28, 110mm +31, 120mm +34, etc.

Equal to or less than: -10mm -1, -20mm -4, -30mm -7, -40mm -10, -50mm -13, -60mm -16, -70mm -19, -80mm -22, -90mm -25, -100mm -28, -110mm -31, -120mm -34, etc.

Tire width is determined by the number printed on the tire sidewall by the manufacturer. If a tire does not have a manufacturer's printed number on the sidewall, then actual tread width measurement will be used. UTQG treadwear ratings are as of the date of the current version of the TT rules. Any new tire or tire with a changed UTQG treadwear rating must be evaluated by the National TT Director before the rating will be legal for use in NASA TT classing. All DOT-approved tires must be available for purchase by the general public through Federal or state licensed tire dealers.

Actual Tire Size _____ mm Base Class Tire Size _____ mm Difference _____ mm #Points _____

Total Tire Modification Points

WEIGHT REDUCTION:

Weight reduction points are based on the actual vehicle minimum competition weight (with driver). Removal and lightening of non-essential parts is permitted unless stated otherwise in the rules. Modification of the OEM frame, sub-frame, and floor pan are not permitted (see 6.3.2) Removal or lightening of engine parts is permitted only as listed elsewhere in the TT rules:

If the base weight used for base classing purposes (section 6.3.2) minus minimum competition weight (with driver*) is greater than: 5 lbs +1, 20 lbs +2, 35 lbs +3, 50 lbs +4, 65 lbs +5, 80 lbs +6, 95 lbs +7, 110 lbs +8, 125 lbs +9, 140 lbs +10, 155 lbs +11, 170 lbs +12, 185 lbs +13, 200 lbs +14, 215 lbs +15, 230 lbs +16, 245 lbs +17, 260 lbs +18, 275 lbs +19, 290 lbs +20, 305 lbs +21, 320 lbs +22, 335 lbs +23, 350 lbs +24, 365 lbs +25, 380 lbs +26, 395 lbs +27, 410 lbs +28, 425 lbs +29, 440 lbs +30, 455 lbs +31, 460 lbs +32, 475 lbs +33, 490 lbs +34, 505 lbs +35, etc...

*Minimum competition weight is the vehicle's lightest weight with the driver and safety gear, during any competition session. Any driver/team who's vehicle at impound does not meet the minimum weight that they have declared on their car classification sheet will be disqualified if the number of modification points based on the lighter actual weight puts the car in a higher competition class. As well, harsh additional penalties may be assessed (section 11), that may include loss of all prior points for the season in that class.

Total Wt. Reduction Points Base Wt. _____ lbs. minus Min. Competition Wt. _____ lbs. = _____ lbs.

ENGINE/DRIVETRAIN:

- N/A 1) Engine swap: All engine swaps must be evaluated for new base classification by the National TT Director on an individual basis, unless a base class for the particular swap is listed above in 6.3 Base Classifications or in Appendix A. The following factors will be taken into account in classing the car: wt./hp ratio, total weight, high torque in the usable rpm range, body style, engine location, drivetrain type, advanced technology/engineering in OEM suspension, brakes, drivetrain, and aerodynamics, and dry sumps (if engine is lowered). Competitors should submit all of the above data to the National TT Director with the request for re-classification of the vehicle. Most engine swaps will require chassis dynamometer testing of the competition-ready vehicle and submittal of the minimum competition weight chosen by the competitor. (see section 6.4.2 Dyno Testing Procedures)
- N/A 2) Increased number of camshafts or non-OEM (non-stock) head(s)/hybrids: engine swap rules with Dyno testing apply—must be evaluated by the National TT Director for re-classification. (see section 6.4.2 Dyno Testing Procedures)
- N/A 3) Non-OEM, upgraded, or modified turbo, or supercharger: engine swap rules apply—all OEM naturally aspirated vehicles that have been upgraded to forced induction and forced induction vehicles with an upgraded or modified turbo or supercharger must be evaluated by the National TT Director on an individual basis for new base classification based on chassis dynamometer testing and minimum competition weight as in 1) above and in Section 6.4.2 Dyno Testing Procedures. After re-classification, modification points will not be assessed for weight reduction or engine. However, if the power output of the vehicle is later increased, the participant will have to get the vehicle re-classified again.
- _____ 4) Increased displacement by: <1.5% +0, 1.5% to <5.5% +4, 5.5% to <7% +6, 7% to <10% +8, 10% to <15% +10, 15% to <20% +15, > 20% +20.
Formula to calculate % = current disp. divided by OEM disp., minus 1, x 100 = %
Example: 407ci/351ci = 1.16, minus 1 = .16, x 100 = 16% (+15 pts)
Example: 1852cc/1799cc = 1.029 minus 1 = .029 x 100 = 2.9% (+4 pts)
- _____ 5) Modified or non-OEM camshaft(s) or cam timing gears +6 (for one or more)
- _____ 6) Valve size change, modified, ported or polished OEM head (other than simple shaving of the head only) +6
- _____ 7) Any modifications that result in increased engine compression ratio (including shaving the head or decking the block to factory specs): 0.50 or less +0, >0.50 +3, >1.0 +6, >2.0 +10, >3.0 +15
- _____ 8) De-stroked engine +4
- _____ 9) Replacement pulleys (other than for supercharger) +1
- N/A 10) Port modification for rotary engine: Dyno testing rules apply—must be evaluated by the National TT Director for re-classification. (see section 6.4.2 Dyno Testing Procedures)
- _____ 11) Added dry sump oil system +7 (+14 if motor is lowered from OEM location)
- _____ 12) Aftermarket computer system (any non-OEM “stand-alone” or “piggyback”):
+3 naturally aspirated, +10 forced induction
- _____ 13) Modification of the OEM air intake/box, air filter location, air piping to the turbo/supercharger/throttle body/intercooler/carburetor, or hood/fascia/fender air inlets +1 (air filter upgrade alone—0 pts.)
- _____ 14) Replacement pulley for OEM supercharger +4
- _____ 15) Aftermarket boost controller or modification/alteration of OEM vacuum lines that serve to function as a boost controller +4
- _____ 16) Aftermarket or modified wastegate actuator, wastegate, or vacuum line(s) that serve to control the wastegate actuator function or increase peak boost +3
- _____ 17) Add aftermarket intercooler +7
- _____ 18) Non-OEM or modified intercooler +4
- _____ 19) Non-OEM or modified/porting throttle body +2; independent throttle bodies +4
- _____ 20) Non-OEM or modified/porting, or deleted intake manifold: 4 cyl. +1, 6cyl.+2, 8 cyl. +3, 12A & 13B rotary +2, all other rotary +3
- _____ 21) Non-OEM or modified carburetor, fuel rail, fuel injectors, fuel pump, and/or fuel pressure regulator +2 (no points for fuel pump alone if using OEM fuel and timing maps, sensor inputs and ignition timing)
- _____ 22) Water injection system +6 (An alcohol-water mixture is permitted, but the driver must notify Race Control and Safety that it is being used.)
- N/A 23) Nitrous oxide injection is illegal.
- _____ 24) Modification or porting of the exhaust manifold +2
- _____ 25) Aftermarket or modified header +2
- _____ 26) Non-OEM or modified exhaust system downstream from the header, exhaust manifold, or turbo. (does not include catalytic converter removal/upgrade) +2 (Note: Replacement of a failing OEM exhaust system may be permitted without a points assessment if the OEM definition in 6.5 OEM Definition is strictly adhered to.)
- _____ 27) Non-OEM or modified exhaust piping, resonators, or mufflers downstream from the OEM catalytic converter(s) locations(s) +1 (for basic “catback” exhaust or performance mufflers only—otherwise, must use 26) +2 if the vehicle has an aftermarket, modified, or deleted header/secondary/downpipe/pre-cat section/catalytic converter)

- _____ 28) Removal, upgrade, or modification of catalytic converter(s). +1
- _____ 29) Non-OEM sequential (semi-automatic) or dog-ring (non-synchromesh) transmission (includes altered gear ratios) +7
- _____ 30) Upgrade number of forward gears in transmission or altered gear ratios +3
- _____ 31) Added paddle/electronic shift +3
- _____ 32) Added limited slip differential or welded/locked differential +3
- _____ 33) Changed or modified limited slip differential (or welded/locked OEM LSD) +1
- _____ 34) Added traction control +3 (no points if proven disabled during competition)
- _____ 35) Relocation of engine/transmission between 1 and 10 inches of the OEM location +7
(note: Relocation of less than 1 inch is not assessed points, and more than 10 inches is not permitted without the approval of the National TT Director.)
- _____ 36) Modification/upgrade from a fixed to a floating rear axle +3

Total Engine/Drivetrain Modification Points

SUSPENSION/BRAKES/CHASSIS:

- _____ 1) Non-OEM shocks/struts/dampers with an external reservoir or more than two ranges of adjustment +10
(example: compression (bump) and both high & low rebound adjustments)(must still take points for springs below).
- _____ 2) Non-OEM shocks/struts/dampers with a retail price of greater than \$600 per unit (\$2400 total) or \$750 each if sold only as a coilover with spring included (\$3000 total). Also “Piggyback” external reservoir shocks/coilovers/dampers with a retail price of less than \$1050 per unit (\$4200 total)—must still take additional points for the springs below +7
- _____ 3) Non-OEM or modified/re-valved shocks/struts/dampers +3 (all others)(springs not included)
- _____ 4) Non-OEM or modified coil springs, leaf springs/spacers/brackets, or torsion bars +2
- _____ 5) Conversion of torsion bar/leaf spring suspension to coil spring and strut/shock suspension +2
- _____ 6) Add, replace, remove, or modify anti-roll bars (“sway” bars—front, rear, or both—may have spherical joints on the end links without additional points assessment) +2
- _____ 7) Replace or modify control arms (other than plates, shims, slots, or eccentric bolts/bushings for simple camber/caster adjustment only)(may have spherical/metallic joint(s) for connection to the spindle/knuckle) +4
- _____ 8) Relocation of front suspension mounting points +6
- _____ 9) Relocation of rear suspension mounting points +6
- _____ 10) Changing the mounting orientation/design of the OEM shock and/or spring perch to invert them +1
- _____ 11) Using the alternate control arm mounting location on cars equipped OEM with multiple choices +6
(example: to increase track width)
- _____ 12) Changing the orientation or design of an OEM mounting point or pick-up point of a control arm for a panhard bar or trailing arms +1
- _____ 13) Replaced or modified K-members that change the location of the lower control arms +8
- _____ 14) Tubular K(cross)-members that do not change the location of the lower control arms +2
- _____ 15) Bump steer kits or shimming of the steering rack +2
- _____ 16) Alteration of ball joints/dive angles +2
- _____ 17) Add panhard rod or Watt’s link (regardless of whether the Watt’s link replaces an OEM panhard rod or not) +4
- _____ 18) Replace or modify an OEM panhard rod or Watt's link +2
- _____ 19) Add torque arm +4
- _____ 20) Replace or modify an OEM torque arm +2
- _____ 21) Increase in track width greater than 3 inches due to non-OEM axles, control arms, brake rotors/hats, wheel spacers, hubs, wheel offset, and/or camber adjustment +6 (measured from the inside of one tire to the outside of the opposite tire at ground level—averaging the measurements in front of and behind the contact patch to negate the effect of toe)
- _____ 22) Non-OEM rear trailing arms (for stiffness only, no change in suspension mount or pick-up points from stock) +1
- _____ 23) Non-OEM rear control arms on FWD vehicles (for stiffness and wheel alignment only, no change in suspension mount or pick-up points from stock) +1
- _____ 24) Non-OEM brake calipers +2
- _____ 25) Metallic replacement suspension bushings (Heim joints/spherical joints) +3 (except for pillow ball camber plate joints, sway bar end links already assessed points in 6) above, and control arm spindle/knuckle joints already assessed points in 7) above)
- _____ 26) Add front lower stress/arm brace (two attachment points maximum) +1
- _____ 27) Add a third attachment point to front or rear strut tower bar (or replace existing 3 point) +1
- _____ 28) Add or modify other chassis stiffening devices or fabricated parts (such as lower strut braces or lower arm braces (with greater than two attachment points), subframe connectors, subframe braces, subframe mounts/bushings, etc) +3
- _____ 29) Non-OEM driver/cockpit adjustable sway bar or suspension settings +4

Total Suspension/Brakes/Chassis Modification Points

AERODYNAMICS:

- _____ 1) Add, replace, or modify front fascia or air dam +3 (except as provided for in 13), 25), 57) of the No-Points Modification list) (note: Additional points must be assessed below for any component of the added/replaced/modified fascia or air dam that performs the functions listed in 2) and 4) below)
- _____ 2) Add, replace or modify a single front splitter/spoiler/wing/foil +3 (note: This part may extend horizontally past the side of the vehicle no greater than five inches. If any portion of this part that protrudes from the side of vehicle is not parallel to the ground, then additional points must be assessed for canards in 4) below.) (note: No material or part may extend the vertical reach of the OEM front fascia without taking fascia modification points above.)
- _____ 3) Add, replace, or modify rear wing or spoiler +4 (a rear wing or spoiler may not exceed a height of eight (8) inches above the roofline (or OEM windshield height for convertibles), or a width greater than the width of the car body.
- _____ 4) Add or modify canards/winglets (includes portions of an added/modified/replaced fascia that provide a downward force other than that listed in 2) above) +2
- _____ 5) Add or fabricate flat bottom/belly tray (rearward of the centerline of the front axle) +5
- _____ 6) Add rear diffuser (note: additional points must be assessed for any vertical panels incorporated into a rear diffuser that are greater than five inches in height) +2
- _____ 7) Replace or modify OEM rear diffuser, rear bumper cover, or rear “fascia” (note: additional points must be assessed for any vertical panels incorporated into a rear diffuser that are greater than five inches in height) +1
- _____ 8) Add rear vertical panels in any location (note: see 6) and 7) and 10)) +2
- _____ 9) Add or modify side skirts +2
- _____ 10) Add vortex generator to roof, rear window, or rear deck lid (note: additional points must be assessed for any vertical panels incorporated into a rear diffuser that are greater than five inches in height) +1
- _____ 11) Removal of the front windshield/windshield frame +7
- _____ 12) Front side window frame air dams/diverters (driver and/or passenger side) +2

Total Aerodynamics Modification Points

ROLL CAGES:

6 or 8-point roll cage designs constructed per the NASA CCR may be utilized without a TT modification point assessment. Additional bars and/or attachment points within the driver’s compartment that exceed the allowances in the CCR are also permitted. The following roll cage designs are permitted but will be assessed points as follows:

- _____ 1) One or more bars that penetrate the front bulkhead/firewall +2
- _____ 2) One or more bars that are welded to the chassis (directly or with a plate) anywhere farther than 6” from the end of a tube where it terminates at a plate +2

Total Roll Bars/Cages Modification Points

Grand Total Of All Modification Points (Enter this number on page 1)

NO-POINTS MODIFICATIONS:

- 1) Rolled fender lips
- 2) Flared fenders
- 3) Sun/moonroof removal and cover roof hole.
- 4) Battery replacement/lightweight battery/dry cell
- 5) Air bag removal (must be removed or disabled for Performance Touring)
- 6) Jack and spare tire removal (required if not bolted down securely—removal required for Performance Touring)
- 7) Floor mat removal (required)
- 8) Wheels, wheel studs, wheel bearings replacement/upgrade, hub modification/replacement
- 9) Final drive ratio modification
- 10) Simple camber, caster, and toe adjustment by any method that does not alter suspension mounting points (unless the modification used is otherwise assessed points above). Bolt on camber/caster plates are not assessed points.
- 11) Ride height adjustment (must still take points for springs and torsion bars above)
- 12) Air filter upgrade (without modification of the air filter housing or air intake system)
- 13) Radiator upgrade/shrouding/fascia modification (drilled or cut holes/slots) that only provides increased airflow to the radiator or oil/transmission coolers (without aerodynamic or engine air intake improvement)
- 14) Starter motor replacement
- 15) Alternator replacement (must be able to sustain vehicle operation without a battery)
- 16) Oil systems and coolers other than added dry sump
- 17) Motor mounts and inserts replacement/upgrade or modification (with up to 1 inch of relocation of the motor/transmission)

- 18) Engine rebuild with head shave, block decking and 0.020" overbore—provided that compression ratio is not increased by more than 0.5 and displacement is not increased by greater than 1.49%. Forged pistons and internals are legal; however, points must be assessed for de-stroking, and/or increased displacement and compression ratio if greater than the limits listed above. (Note: 0.020" overbore with OEM rods and overbore pistons will yield an increase in displacement of approximately 1.1% for most engines.)
- 19) Engine balancing and blueprinting
- 20) Spark plug wires, plugs, coil, ignition replacement/upgrade
- 21) Turbo blow-off valve upgrade, modification, or addition
- 22) Removal of the engine balance shaft and/or balance shaft drive mechanism
- 23) Lightweight flywheel and/or clutch assembly
- 24) Fuel: Any grade of commercially available unmodified gasoline or diesel--all octane levels of retail available race gas are permitted. No "home brewed" methanol/ethanol/alcohol mixtures are permitted. Methanol injection systems are illegal. Fuel additives are prohibited. Retail available E-85 is permitted.
- 25) Brake duct addition or modification, including electric fans (water sprayers are illegal). Two holes may be cut or drilled out of the front fascia for brake air ducts. Any hole providing improved intake air to the engine will be assessed one (1) point under Engine 13).
- 26) Non OEM brake pads and rotors
- 27) Brake lines, brake boosters, and master cylinder modification or replacement.
- 28) Emergency brake removal
- 29) Non-metallic replacement suspension bushings
- 30) Steering wheel replacement
- 31) Mirror addition or replacement
- 32) Gear shifters and shift knob replacement/upgrade
- 33) Seat harnesses (must be compliant with NASA CCR)
- 34) Maximum of two hundred and fifty (250) lbs. of added ballast—All ballast must be of solid material (no fluids or shot pellets) and safely secured in any location on the vehicle approved by NASA safety technical inspectors. The preferred method is to use at least one (1) 3/8-inch grade-5 bolt, two (2) "fender" washers and a locking nut system for every fifteen (15) pounds of weight.
- 35) Data acquisition systems—telemetry is not permitted (NASA CCR section 18.7)
- 36) Non-OEM driver's seat
- 37) Non-OEM front passenger seat
- 38) Relocated Battery
- 39) Undertray/ belly pan forward of the centerline of the front axle
- 40) No aero points for adding a hardtop to a convertible or removal of convertible soft top/frame
- 41) Seam welding of the body/chassis
- 42) Shock tower reinforcement plate (to strengthen tower shock mount location only--no bars)
- 43) Shock mount replacement/modification (only if already taking points for both shocks and springs)(may raise or lower mount location up to two (2) inches if no horizontal movement.)
- 44) Accelerator, brake, and clutch pedal modification or replacement.
- 45) Drive by wire to cable throttle conversion (throttle body must remain identical to OEM in both size and shape to avoid a +2 throttle body assessment).
- 46) Add front strut tower bar (two attachment points—bolted in or as component of the cage)
- 47) Add rear strut tower bar (two attachment points—bolted in or as a component of the cage)
- 48) Lexan windshield, rear window, and rear passenger side windows (windshield must be 3/16" minimum thickness). (See section 10 Safety regarding front side windows)
- 49) OEM ECU/PCM reprogramming or chip (must use OEM ECU/PCM box/housing/hardware)
- 50) Programmable fuel systems without control of engine timing (such as SAFC, VAFC)
- 51) Non- OEM sensors or alteration of sensor inputs (such as non-programmable MAF or MAP voltage "clamps")
- 52) Steering rack replacement or modification without geometry change (ratio changes)
- 53) Non-OEM valve springs and retainers
- 54) Ignition timing adjustments
- 55) NACA ducts, air ducts, or air hoses placed in a side window frame solely for purposes of driver cooling.
- 56) Front wing window removal and replacement with Lexan
- 57) Headlamps, headlight covers, and fog lights may all be removed, and the holes may be covered with material that replicates the shape of the OEM light/cover, leaving the shape of the OEM fascia intact. Uncovered holes may be used for brake ducts. Any hole providing improved intake air to the engine will be assessed one (1) point under Engine 13).

Note: For NASA racecars/guest classes that are given a base classification in 6.3.1, these modifications must also be legal under the racecar's class rules. The race class rules take precedence over this list.

Note: Many of the modifications listed above can/will alter the overall weight of the vehicle. While these modifications are not assessed points individually, and additional weight reduction methods are permitted without individual points assessment (as stated under Weight Reduction), the overall weight of the vehicle and driver (minimum competition weight) will be used to assess points and/or penalties for all vehicles.