

BIG HORN BASIN UNIFIED

2018 LIMITED WELD CLASS RULES

I. Vehicles

- A. All vehicles will undergo **THOROUGH INSPECTION** prior to entering the pits!
- B. Any American made make and model of passenger vehicle or station wagon can be used with the following exceptions: No International Travel-cars, convertibles, Checker cabs, ambulances, hearses, limousines, or 4WDs.
NOTE! Imperials 1973 and older, as well as vehicles with an Imperial sub-frame swap, are only allowed to compete in the Powell (Park County Fair and Smashtoberfest) and Thermopolis derbies. No other derbies under the Big Horn Basin Unified Rules (**Worland & Lovell**) will allow 1973 or older Imperials or Imperial sub-frame swaps.
- C. No "sedagons" or vehicles with excessive pre-bending will be allowed ... ask before you build.

II. General Vehicle Preparation

- A. Vehicles will be completely stripped of interior to reduce fire hazards. This includes carpet/door panels/rear seats/dash/headliners/unnecessary electrical wires.
- B. All glass must be removed, and every attempt must be made to remove **ALL** glass fragments prior to inspection.
- C. All exterior trim/door handles/mirrors/lights/plastic grilles/etc. must be removed. Metal grilles may remain.
- D. If the vehicle was equipped with air bags, they **MUST** be removed.
- E. Drivers' doors **MUST BE PAINTED A CONTRASTING COLOR**.
- F. Both front doors and the roof **MUST** have the driver name and number clearly **VISIBLE** and **LEGIBLE**. A properly secured roof sign is allowed but not required.
- G. Obscenities or vulgarity will **NOT** be allowed anywhere on the vehicle.
- H. Drivers may use a custom or fabricated steering column but **ALL** steering linkage, tie-rods, etc. must remain stock.
- I. Wheels and tires will adhere to the following rules:
 - 1. Any type of tire can be used as long as they contain only air. No solid rubber/liquid/foam-filled tires allowed.
 - 2. Wheels **MUST** be stock-type, factory wheels up to 16" diameter.
 - 3. Weld-in centers are allowed at the mounting surface only (roughly 6-8" diameter) and not exceeding 1/4" thick.
 - 4. Wheels may have valve stem protectors welded to them. No "bead locks" allowed.
 - 5. Wheels and tires (spares included) **MUST** have a large "+" painted on them **IN A CONTRASTING COLOR** to allow Field Judges to determine if/when your brakes are locked.

III. Sheet-metal

- A. Body sheet metal seams may be welded from **REAR OF THE A-ARMS FORWARD** with no added metal. Otherwise, there is **NO WELDING** allowed unless specifically stated elsewhere within these rules!
- B. Wheel-wells may be trimmed for tire clearance and may have the inner and outer skin welded or bolted together. If welded, no additional metal may be added. If bolted, a maximum of 10 bolts may be used (3/8" hardware).
- C. Drivers may patch rust holes in the body metal or floorpans as well as repair holes from damage that occurred in a previous derby. The patch material **MUST** be the same thickness (18 to 20 gauge) and can be welded with no added metal up to a maximum of 2" beyond the repaired hole.
- D. If creasing body panels, hammered or artificial body creases can **NOT** be welded or bolted.

IV. Bumpers

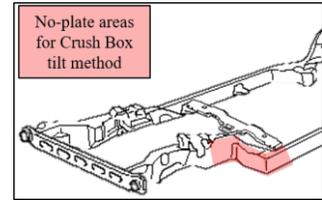
- A. Bumpers must be passenger car bumpers (*no pickup or homemade bumpers allowed*). Bumper swaps from other vehicle makes are allowed. Bumpers may be flipped, and front bumpers may be used on the rear and vice versa.
- B. Bumpers can **NOT** be stuffed, packed, or reinforced in any way, and factory openings can **NOT** be closed.
- C. Bumper ends may be trimmed and/or bent around and may be re-welded with no added metal.
- D. Bumpers may have the chrome outer shell and steel inner core welded together with no added metal.
- E. Bumpers with multiple pieces (i.e. bumper corners) may be welded together with no added metal.
- F. Bumpers may be welded directly to the frame with no added metal (trimming/shaping end of frame rails is allowed).
- G. OEM or individually fabricated bumper brackets may be welded to the bumper **AND** the frame with no added metal.
- H. Individually fabricated bumper brackets will adhere to the following rules:
 - 1. Fabricated bracket material (plate, strap, angle, etc.) can **NOT** exceed 1/2" thick. If using pipe or square tubing, a maximum of 3" pipe or 3" square tubing with a maximum wall thickness of 1/4" will be allowed.

2. Fabricated brackets can **NOT** exceed the height or width of the frame, and they may not extend more than 6” onto or into the frame. Pipe/tubing can **NOT** extend more than 10” onto or into the frame.
 3. The use of a “no-weld bumper plate” not exceeding 1/2” thick is allowed.
 4. Shock absorber-type bumper mounts may be welded to the inside or outside of the frame with no added metal. Shock absorbers may also be welded solid around the tube seam only (must be drained if welded). Similar to pipe/tubing, Shock absorbers can **NOT** extend more than 10” onto or into the frame unless they did when stock.
 5. **Fabricated brackets can NOT overly extend bumpers more than 6” from back of bumper to frame.**
- I. **IN ADDITION TO** rear bumper mounts, bumpers may be secured to the rear of the vehicle by welding **OR** chain:
1. Drivers may weld the entire perimeter of the **REAR BUMPER** directly to the body metal of the vehicle. Due to varying gaps between the bumpers and car bodies, drivers may use the following filler materials:
 - a. Round stock/rebar/cold rolled steel not exceeding 1/2” thick.
 - b. Up to a maximum of 2” x 3/16” flat strap.
 - c. **NOTE:** If the gap cannot be filled by the above two options, flat strap of a greater width may be used, but it cannot extend more than 1” onto the body or bumper.
 2. If drivers do not desire to weld the entire perimeter of the bumper, they may instead choose to use (2) **VERTICAL** straps welded from the trunk lid or wagon tailgate to the bumper.
 - a. Strap can **NOT** exceed 4” x 3/16” metal.
 - b. Strap will **NOT** extend more than 6” onto the bumper and 6” onto the trunk or wagon tailgate.
 3. If chaining, a maximum of (2) vertical chains can extend from the trunk lid to the bumper.
 - a. Chains can **NOT** exceed 3/8” link and links can **NOT** be welded.
 - b. Chain holes may be reinforced with plate material or large washers. Plate material can **NOT** exceed 4” x 4” square and 1/8” thick. Washers can **NOT** exceed 4” diameter.
- J. **IN ADDITION TO** front bumper mount, bumper may be secured to the front of the vehicle by welding **AND** chain:
1. Bumper ends can be welded to the forward edge of the front fenders on the sides of the vehicle only.
 2. A maximum of (2) vertical chains can extend from the hood to the bumper.
 - a. Chains can **NOT** exceed 3/8” link and links can **NOT** be welded.
 - b. Chain holes may be reinforced with plate material or large washers. Plate material can **NOT** exceed 4” x 4” square and 1/8” thick. Washers can **NOT** exceed 4” diameter.

V. Frames

- A. Frames may **NOT** be plated, pinned, or otherwise reinforced in any way unless specifically allowed in the rules.
- B. Fresh vehicles are authorized 10” of reinforcing plate on each frame rail – *a total of 20” on the entire vehicle* – in the location(s) of your choice. The intent of this rule is to give drivers the ability to strengthen any common, known weak spot(s) on fresh vehicles in a controlled and equal manner. Pre-run vehicles are authorized an additional 10” of reinforcing plate on each frame rail – *now a total of 40” on the entire vehicle* – in the location(s) of your choice. The intent of this rule is to give drivers the ability to repair damaged, kinked, or bent frame rails on pre-run vehicles in a controlled and equal manner. The following rules apply to reinforcing plates:
1. Reinforcing plates can **NOT** exceed 1/4” thick.
 2. Reinforcing plates can **NOT** exceed the height or width of the frame.
 3. Reinforcing plates can **NOT** exceed 10” in length. Drivers can choose to split a plate **VERTICALLY** into smaller sections if they desire (i.e. two 5” long plates **OR** a 4” and 6” long plates). If one plate is split, drivers can **NOT** combine the remainder with another plate (i.e. a 6” long plate being combined with a 10” long plate to create a 16” plate). Each 10” plate allocated may only be split once.
 4. Reinforcing plates can **NOT** be located within 3” of another plate but can be on **OPPOSING** sides of the frame.
 5. Reinforcing plates may be welded or bolted in place lengthwise along the frame.
 6. If drivers utilize any reinforcing plates, the plated locations will be disclosed to inspectors at the time of inspection. They **MUST** be painted with **RED PAINT** in order to allow inspectors to clearly identify them.
 7. **HIDDEN OR EXTRA PLATES FOUND AT ANY TIME FROM INSPECTION TO CONCLUSION OF DERBY WILL RESULT IN IMMEDIATE DISQUALIFICATION!** *Entry fees are non-refundable.*
 8. **NOTE!** Sub-frames are **NOT** considered “pre-run” if swapped into a fresh body!
- C. Frames may be seam welded **FROM THE REAR OF THE A-ARMS FORWARD** with no added metal.
- D. Any vehicle with a “Y” or split-frame immediately behind the front bumper can have one of these three options:
1. The “Y” may be pinched or squeezed closed. The closed “Y” may be seam welded with no added metal.
 2. The frame “Y” can be plated per the rules above (counts against total plate allowance).

3. If not welded, a maximum of (2) bolts may be used per side running horizontally (side-to-side) through the “Y portion” to prevent it from spreading (3/4" hardware).
- E. Frame “Tilting or Notching” will be accomplished by one of the following options:
1. Drivers may “cold tilt” any vehicle without cutting or welding.
 2. Drivers may tilt frames using a “pie-cut” or notch. A pie cut or notch may be rewelded with no metal added and may be strengthened with a reinforcing plate if desired (counts against total plate allowance).
 3. Drivers may tilt Ford/Lincoln/Mercury vehicles at the crush box by cutting and rewelding **the FACTORY TABS/SEAMS ONLY**. If using this tilt method, drivers can **NOT** use any reinforcing plate from the rear of the A-arms to the transmission crossmember. The crush box can **NOT** be plated nor have gussets.
 4. Regardless of tilt method, spacers at the core support can **NOT EXCEED 6”** in height. Spacer material must be hollow and can **NOT** exceed 2” in diameter.
- F. Drivers can **NOT** join or graft non-original sections of one frame to another frame. All frames **MUST** remain as designed/produced from the factory other than modifications specifically allowed in these rules with *one exception*:
1. 2003+ Ford/Lincoln/Mercury can *replace* the stock aluminum crossmember with a steel crossmember built from a donor vehicle (no K-frames). It **MUST BE BOLTED IN ONLY**, and **ALL SUSPENSION AND STEERING COMPONENTS MUST BE OEM PARTS** (i.e. spindles, A-arms, springs, steering linkage/boxes, etc.).
- G. Frames may be shortened within the following rules:
1. Front frames shortened no further than original core support mounts.
 2. Rear frames shortened only so much as necessary to flush-mount a rear-bumper with the original body metal.
- H. Trailer hitches must be completely removed from the frame.
- I. No fresh paint or undercoating is allowed on the frame except the required painting of reinforcing plates if used.
- J. Factory holes and openings in the frame **MUST** remain open for inspection and can **NOT** be welded shut.
- K. Complete sub-frame swaps (i.e. Shocker sub into Mopar C-body, etc.) are allowed for **UNIBODY CARS** provided they do **NOT** violate other rules and are mounted as original (**BOLTED ONLY**), including Imperial sub-frames.
- L. Body mounts or “pucks” may be removed, but the body of the vehicle can **NOT** be welded to the frame. If body mounts/pucks are removed, replacement bolts/washers can **NOT** exceed 3/4” hardware and 3” diameter washers.



VI. Outside Body Seams

- A. Doors
1. Doors **MUST** be welded on the **OUTSIDE OF THE VEHICLE ONLY**.
 2. Filler material can **NOT** exceed 1/2” round stock/rebar/cold rolled **OR** 2” x 3/16” flat strap. On the front door to front fender seams **ONLY**, a maximum of 4” x 3/16” strap is allowed.
 3. Inner and outer door skins may be pinched together along the top and welded with no added metal.
 4. Interior door seams can **NOT** be welded.
 5. Any vehicle that has **ANY DOOR** come open will be **IMMEDIATELY DISQUALIFIED**.
- B. Trunks and Wagon Tailgates
1. Trunks and tailgates **MUST** be welded on the **OUTSIDE OF THE VEHICLE ONLY**.
 2. Filler material can **NOT** exceed 1/2” round stock/rebar/cold rolled **OR** 2” x 3/16” flat strap.
 3. Trunk lid support webbing can **NOT** be welded or bolted to the trunk lid.
 4. Inner and outer tailgate skin may be pinched together along the top and welded with no added metal.
 5. Trunks lids may be “tucked” within the following rules:
 - a. If welding, the trunk lid may be welded to the interior trunk floor with no added metal. In the event the trunk lid does not fully meet the trunk floor, the **ONLY** filler material that can be used is sheet metal.
 - b. If bolting, the trunk lid may be bolted with a maximum of 3/8” hardware.
 6. Trunks lids may be “caved” within the following rules:
 - a. Trunk lids may be pushed downward or caved-in, and rear fenders may be bent or folded inward.
 - b. Trunk and tailgate seams can **NOT** be welded in any place on the interior of the trunk floor or lower trunk side extensions; however, rear fenders may be pushed inward and bolted to the lower trunk side extensions with a maximum of 3/8” hardware. No more than (10) bolts may be used on each side.
 - c. **LIMITED** welding is allowed (no added metal) to secure fenders. *Inspectors will use discretion.*
 7. **IN ADDITION TO** all trunk and tailgate closure method above (including tucking), drivers are allowed (2) All-thread (one per side) up to 1” in diameter in the location of their choice under the following stipulations:

- a. All-thread can be welded or bolted *to or through* the rear frame with no added metal.
 - b. All-thread holes may be reinforced with plate material or large washers. Plate material can **NOT** exceed 4" x 4" square and 1/8" thick. Washers can **NOT** exceed 4" diameter.
8. Rear seat to trunk opening **MUST** remain open to inspect the trunk area. If the trunk is wedged, (2) holes with a 6" diameter on each side of the trunk lid are **MANDATORY** for inspection.
9. Station wagon spare-tire access covers may be welded or bolted according to the following rules:
- a. Stitch welded with 4" long welds separated by 4" gap.
 - b. Bolted every 4" with a maximum of 3/8" hardware.
 - c. A 10" diameter hole **MUST** be cut in the center of the spare-tire access cover for inspection underneath.
 - d. Drivers may also choose to completely remove the spare-tire access cover.
- C. Hoods
1. **Hoods must be able to be opened and will be completely removed or lifted on hinges prior to inspection.**
 2. Hoods may be secured with bolted angle iron (pieces of opposing angle iron each being welded to the hood and front fenders). Hood angle iron will be inspected within the following rules:
 - a. Angle iron can only be welded to the **SIDES** of the hood. This is defined as driver and passenger sides.
 - b. Hood angle iron can **NOT** exceed 18" **TOTAL LENGTH** per side of the hood. Drivers may split their allowable 18" of angle iron as desired, but drivers can **NOT** use angle iron pieces shorter than 4" in length (i.e. 5" - 5" - 8" **OR** 6" & 12" **OR** 4" - 6" - 8" and so on).
 - c. Hood angle iron can **NOT** exceed 2" in height & width.
 - d. Hood angle iron can **NOT** exceed 1/4" in thickness.
 - e. A maximum of 2 bolts per set of angle iron are allowed, but can **NOT** exceed 1/2" hardware.
 3. **IN ADDITION TO** bolted angle iron, (2) All-thread (one per side) with a maximum diameter of 1" may be used under the following stipulations:
 - a. All-thread **MUST** be located immediately in front, behind, or pass through the radiator core support.
 - b. All-thread can be welded or bolted *to or through* the front frame with no added metal.
 - c. All-thread holes may be reinforced with plate material or large washers. Plate material can **NOT** exceed 4" x 4" square and 1/8" thick. Washers can **NOT** exceed 4" diameter.
 4. **ALTERNATIVELY**, if drivers do not wish to use the bolted angle iron, (4) additional All-thread (two more per side) with a maximum diameter of 1" may be used (*Riverton-style*) under the following stipulations:
 - a. All-thread can be welded or bolted *to or through* the frame with no added metal.
 - b. All-thread holes may be reinforced with plate material or large washers. Plate material can **NOT** exceed 4" x 4" square and 1/8" thick. Washers can **NOT** exceed 4" diameter.
 5. Hoods must remain in **ORIGINAL POSITIONS**. They can be folded over at the radiator core support but can **NOT** be slid forward. If folded, hoods can **NOT** be bolted or welded to bumper or radiator core support.
 6. Hoods can **NOT** be cut/sectioned with the front portion bolted or welded to fenders or radiator core support.
 7. Underhood support webbing can **NOT** be welded or bolted to the hood skin.
 8. Hood skin can **NOT** be folded down to the inner fenders or radiator core support; however, hood skin can be folded to the underside of the hood up 4" and welded with no added metal or bolted with up to 3/8" hardware.
 9. Hood openings will adhere to the following rules:
 - a. A minimum of (2) holes with a 6" diameter on each side of the engine near the carburetor are **MANDATORY** in case of fire. Hood holes from stacks or headers should meet this requirement, but they may need to be enlarged at the discretion of the inspector.
 - b. All hood openings for exhaust and engine maintenance (radiators / transmission dipsticks / etc.) may have the hood skin and under-hood support webbing secured together by welding the perimeter of the opening with no added metal or by bolting with a maximum of 3/8" hardware.

VII. Fuel Systems

- A. **PUMP GAS ONLY!** Premium or lesser octane - No aviation, alcohol, or racing fuel will be allowed.
- B. All stock, factory gas tanks **MUST** be removed. The *only exception* to this rule is vehicles that have the fuel tank integrated into the trunk floor. These tanks **MUST** have holes punched in them.
- C. Fuel tanks with a maximum capacity of 6 gallons must be located in the rear seat area. They must be effectively securely and fastened with bolts, ratchet, or welded straps. Bungee or pull-style straps are **NOT** allowed.
- D. Metal fuel tanks are highly recommended, but plastic fuel tanks are allowed provided they are designed to be a fuel tank (no gas cans). Fuel tank fittings must be secured into the tank in an appropriate fashion (no duct tape).

- E. Vehicles may utilize electric fuel pumps. The switch area must be clearly marked with **RED PAINT** for easy identification in the event of a fire. This is for driver and fire personnel protection.

VIII. Cooling Systems

- A. Radiators may be completely removed, but not relocated.
- B. Aftermarket aluminum radiators are allowed.
- C. Additional or external coolant tanks can **NOT** be used to increase coolant capacity.
- D. Radiator core supports can **NOT** be reinforced and **MUST** be bolted within 1” of the **ORIGINAL MOUNTS**.
- E. Electric cooling fans are allowed.
- F. Radiator and cooling fan mounts may be bolted or welded to the radiator core support **ONLY**. Mounts can **NOT** be excessive enough to be considered reinforcement and can **NOT** be attached to the frame.
- G. Transmission coolers with fans or “cold boxes” are allowed. If used, they **MUST** be located in the rear seat area.

IX. Electrical Systems

- A. Batteries **MUST** be relocated to the passenger front floorboard.
- B. A maximum of (2) automotive/marine batteries **OR** (1) large tractor/Cat® battery may be used.
- C. Batteries **MUST** be secure and **MUST** be covered for driver safety.
- D. Metal battery boxes with a top strap are **HIGHLY RECOMMENDED** and may be bolted or welded to the floor.

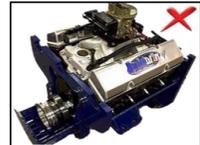
X. Brake Systems

- A. Vehicles **MUST** have *sufficient* brakes and will demonstrate braking ability at inspection. Pinion brakes allowed.

XI. Drive-trains

A. Engines

1. Engine swaps from other vehicle brands are allowed.
2. **Engines MUST be located within 4” of the stock engine location.**
3. Firewalls and floorboards may be trimmed or bent for engine and/or distributor clearance but *every attempt* must be made to close off the interior of the vehicle from the engine compartment for driver safety. Openings larger than 6” must be covered with **SHEET METAL!**
4. All engines **MUST** have an air cleaner. No open carburetors.
5. Engine mounts will be inspected within the following rules:
 - a. Stock engine mounts may be welded or made solid.
 - b. Individually fabricated engine mounts are difficult to regulate due to unique mounting requirements, but bottom line, they can **NOT** be excessive or reinforce the frame in any way. *Inspectors will use discretion.*
 - c. Four additional chains or straps may be used to tie the engine down to the frame. **NO MORE THAN 4”** of chain/strap may be welded to the frame for **EACH** mount.
 - d. **LOWER ENGINE CRADLES** are allowed but can **NOT** reinforce the frame.
 - e. **If a mid-plate is used, it can NOT be connected to frame or lower engine cradle.**
6. Distributor protectors will be allowed but must be at least 10” away from dash bar.
7. **NO FULL ENGINE CRADLES/CAGES/HALOS/PROTECTORS WILL BE ALLOWED!**



B. Transmissions

1. Transmission mounts may be chained, welded, or made solid.
2. Transmission braces are allowed but may have **NO MORE THAN FOUR BARS/STRAPS** (1” thick). Transmission braces may **NOT** be attached to a mid-plate or connected to a lower engine cradle. **NO FULL TRANSMISSION CAGES ALLOWED!**
3. Individually fabricated floor shifters are allowed. Floor shifters may be bolted to the floorboard or directly to the transmission. They may also be welded to the floorboard.



C. Rear Differentials

1. Rear-end swaps from one make to another make are allowed (i.e. Chrysler 9.25 swapped out for a Chrysler 8.75). **NO 3/4-TON or 1-TON REAR-ENDS ... 5-LUG MAX!** See **Rule XII.G** for regulations on swaps.

- D. Drivelines may be OEM or aftermarket. Fabricated slider-type drivelines are allowed.

XII. Suspensions

- A. The maximum height of any vehicle is 26” to the center of the front and rear bumpers. Inspectors will allow flexibility – within reason – for pre-run vehicles on a case-by-case basis. *Pre-bending does not qualify as pre-run.*

- B. Adjusting factory suspensions within factory means is allowed. Additionally, drivers may chain A-arms down (maximum of 3/8" chain with links unwelded). **NO STRAP, SOLID, OR FULLY WELDED SUSPENSIONS!**
- C. Lifting blocks or shackles can **NOT** be used to increase height.
- D. Coil springs may be welded to the rear axle and the frame with no added metal.
- E. Factory trailing arms can **NOT** be reinforced and wall-thickness can **NOT** exceed 1/8" on fabricated trailing arms.
- F. Rear frame humps may be chained around the axle. Chain can **NOT** exceed 3/8" link.
- G. Rear leaf conversions are allowed, but they must be performed as close to a "factory-like" installation as possible. This means a solid front mount and a swinging shackle for the rear mount. **SHORT LEAFS AND EXCESSIVE BRACKETS, PERCHES, PANHARD BARS, OR TRAILING ARMS WILL NOT BE ALLOWED!**
NOTE: THE WORLAND AND LOVELL DERBIES DO NOT ALLOW LEAF CONVERSIONS!
- H. Rear leaf springs
 - 1. Leafs must be 2 1/2" WIDE OR LESS (passenger car leaf springs). No pick-up or HD leaf springs are allowed.
 - 2. Leafs may be added or removed, but "leaf packs" can **NOT** contain more than (7) leafs unless the vehicle was originally equipped with a greater number of leafs in stock form (i.e. GM wagons with 9-leaf OEM springs).
 - 3. Leaf spring clamps may be added. Clamps may be stock-type clamps or individually fabricated clamps. A **MAXIMUM** of (4) clamps are allowed per leaf pack. Leafs can **NOT** be welded together.

XIII. Safety

- A. Driver safety equipment
 - 1. All drivers must wear closed-toed shoes and pants. Shorts/sandals will **NOT** be permitted.
 - 2. Long sleeve shirts and gloves are recommended. The use of fire-retardant clothing is also recommended.
 - 3. A DOT approved closed-faced safety helmet is **MANDATORY**. If this equipment falls off during the derby, you may be **DISQUALIFIED**. Face shields, goggles, or safety glasses are recommended.
 - 4. At a minimum, a lap-safety belt is **MANDATORY**. If a safety belt becomes unsecured or fails during the derby, you may be **DISQUALIFIED**. A shoulder harness is recommended.
 - 5. Fire extinguishers are optional, but if used, they **MUST** be mounted **SECURELY!**
- B. Windshield/Rear Window Openings
 - 1. For safety, all windshield openings **MUST** have (2) bars welded vertically in front of the driver.
 - 2. For safety, rear window openings **MAY** have up to (2) bars welded vertically **IN THE WINDOW FRAME ONLY**. Bars must start and end within 2" of the rear window opening and can **NOT** extend onto the trunk.
 - 3. Material for windshield/rear window bars can **NOT** exceed 1" in diameter/width (rod, pipe, tubing, etc.).
- C. The driver door **MUST** be reinforced for safety by and 4-Point Cage or Door Brace. Safety reinforcements must be contained within the passenger compartment **ONLY** (except the Halo bar and Outside Door Brace). Safety reinforcements may be welded to the **FLOORBOARD ONLY**. Drivers may also use plates where pipe or tubing meets the floorboard (maximum of 6" X 6" in size and up to 1/4" in thick). All safety reinforcements must be constructed **WITH A MAXIMUM OF 4" diameter pipe or 4" square tubing**.
 - 1. 4-Point Cage – The 4-Point Cage may be constructed with a maximum of (4) vertical posts, (1) bar across the dash area, (2) bars across both the driver and passenger doors, and (2) bars across the rear seat area no more than 12" behind the driver seat [(1) of the rear seat bars must be no more than 12" above the floorboard].
 - 2. Door braces – The Door Brace may be constructed with (1) door bar slanted upward across the driver door and (1) rear seat bar slanted downward to the passenger rear floorboard no more than 12" behind driver seat.
 - 3. Halo bar – Halo bar or roll-over protection is **MANDATORY**. It may be routed inside or over the roof of the vehicle. If using a Halo bar with a 4-Point Cage, it will be extended upward from the two rear, vertical posts. If used with the Door Brace, the Halo bar can be independent and attached to the floorboard.
 - 4. Outside Door Brace – An Outside Door Brace may be used instead, but they are **NOT RECOMMENDED**. It can **NOT** extend more than 12" past the front and rear door seams. Lastly, the use of "Grader Blade" material as an Outside Door Brace is allowed, but it is **NOT RECOMMENDED!**