



Revision Date: 1/13/2025

*** Rules Locked Through 2028 Race Season ***

The Hobby Stock division is designed to promote greater interest in stock car competition, to enable new and inexperienced drivers to compete in their own class. It enables individuals with moderate means to compete without spending a significant amount of money for race equipment.

Decisions on interpretation of the rules by Technical Inspectors shall be final. No changes from stock production automobile or component parts except as listed in these rules.

*** Any equipment that the officials consider exotic or not in the intent of the rules shall be considered illegal ***

How the weight penalty/break system works...

The goal of this system is to allow all cars that fit the various definitions of a Hobby Stock to compete legally, and balance the competition using weight. The first time a new car arrives at the track the tech official will ask the driver a series of questions about the specs & technology used in the engine and throughout the chassis. The Tech official will fill out the weight slip according to what the driver has stated. All of the elements covered on the weight slip are subject to tear-down at the end of the Main Event upon MVR official request to ensure proper compliance. If a driver adds new technology, it is the responsibility of the driver to notify tech of the change and get an accurate weight slip. Any car found to be in violation of the weight guidelines will be subject to immediate disqualification and will receive last place points and money, any records achieved that night will be stricken from the records. A second offense will result in disqualification, No Point and No Pay. Weight slip shown below must be located on the upper left or upper right corner of the windshield or on the driver's side sail panel of the car.

It is encouraged that drivers who build cars specifically for this series consider Performance vs Reliability and racecar sophistication vs the benefits of being light weight.



**2025 Montana
Hobby Stocks**

**** ALL WEIGHTS WILL BE CHECKED PRIOR COMPETITION WITH DRIVER IN THE CAR ****

| Engine Displacement | Base Weight <i>(Before Penalties)</i> |
|------------------------------|--|
| Up To 345 cid | Total 3,000 lbs. - Max Left 55% - Max Rear 48% |
| 346 – 365 cid & GM 602 crate | Total 3,200 lbs. - Max Left 55% - Max Rear 48% |
| 366 or more | Total 3,400 lbs. - Max Left 55% - Max Rear 48% |

| | Engine Weight Penalties/Breaks | |
|----|---|------------------------------------|
| | <i>Technology</i> | <i>Weight Penalty/Break</i> |
| E1 | Roller rocker arms | +25 lbs. |
| E2 | Headers | +25 lbs. |
| E3 | Oversized exhaust pipe (Greater than 2 ¼" diameter) | +25 lbs. |
| E4 | Camshaft lift over .500 | +50 lbs. |
| E5 | Compression over 11.1:1 | +50 lbs. |
| E6 | GM 602 Crate w/ 4412 Holley 2bbl per rule 4. | -50 lbs. |

| | Chassis Weight Penalties/Breaks | |
|----|--|------------------------------------|
| | <i>Technology</i> | <i>Weight Penalty/Break</i> |
| C1 | Chassis wheelbase under 108" (Not specified in C3) | -1% Left Side % |
| C2 | Chassis wheelbase over 114" | +1% Left Side % |
| C3 | Gen 3 Camaro & 2005 or Newer Mustang | -1% Left Side % |
| C4 | OEM 4-Link rear suspension | +1% Left Side % |
| C5 | Stock rear disc brakes | +25 lbs. Total Weight |
| C6 | Full-Floater Rear-end | +25 lbs. Total Weight |
| C7 | Non Factory Rocker Panels | +25 lbs. Total Weight |

1. COMPETING MODELS:

Open to all American and Canadian made steel bodied passenger cars, 1960 and newer. No Jeeps or convertibles. No front wheel drive, rear or mid engines allowed.

2. GENERAL SPECIFICATIONS:

- A) Minimum ground clearance of all components is 5". All measurements will be made with driver in the car.
- B) Frame must match, make to make, model to model, year to year.
- C) Control arms may be welded to strengthen.
- D) Over 108" Wheel Base permitted with no weight penalty. See chassis weight penalty/chassis above.
- E) Raceceiver required for tower to driver communication only.

3. ENGINE SPECIFICATIONS:

- A) Stock production V-6 or V-8 engines only. No engine interchange between makes, (must be Ford to Ford, GM to GM). Engine must have been available to the general public to purchase. GM 602 crate motor permitted in all cars
- B) Engine must be stock OEM. All internal parts must be OEM replacement part for make of engine except as noted.
- C) Engine may be set back so furthest forward spark plug is even with spindle centerline. Front motor mount may be after market with no rubber, rear mount must be OEM transmission location may be without rubber.
- D) Stock flat top OEM type replacement pistons only, may over bore of .060". Pistons may not exceed deck height. No racing pistons.
- E) Hyper-Eutectic, Molly-coated allowed on skirts only. No other coating. TRW, SealPower and Keith Black are the only forged pistons allowed. 5/64, 5/64, 3/16 rings only. Full skirts only
- F) Factory OEM "as produced" Stock steel rods. May use aftermarket rod bolts. Must be "as produced" bore, stroke and rod length combination. Crankshaft may be steel or cast.
- G) Any flat tappet hydraulic camshaft. No solids, mushroom or roller camshafts. .500" lift preferred, Up to .530" lift approved with 50 lbs. penalty.
- H) No gear drives. OEM HEI ignition systems are approved. GM style HEI distributors approved in all makes.
- I) Cylinder head casting must match engine displacement as produced with these clarifications: 461 castings, 1.94 intake Camel hump heads including 041, 462, 492 and 186 are acceptable on 350 and 400 cid Chevrolet. Ford 289 head permitted on 351w.
- J) Chevy Vortec, or X heads are not permitted. NO AFTERMARKET HEADS.
- K) Restricted to 2.02 valve size. 3 angle valve jobs permitted. Only rebuild standard allowed is 30, 45 and 60 degrees. Poly-locks are permitted.
- L) Screw-in or pinned studs, push rod guide plates are approved.
- M) No stud girdles.
- N) Chevrolet only allowed 1.5 rocker arms. Mopar and Ford adjustable rockers are allowed. Roller rockers are allowed with weight penalty. Must be factory rocker arm ratio.
- O) No porting, polishing or gasket matching of heads.
- P) Exhaust manifolds must be stock cast iron OEM or stock replacement only, from a standard production car. Chassis or block headers are allowed with weight penalty. Maximum 2 1/4" exhaust from the headers/manifold back. Oversized 2 1/2" maximum exhaust approved with 25 lbs. weight penalty.
- Q) Fuel pump must be stock OEM type and mount in stock location. No electric fuel pumps allowed.
- R) Stock steel or cast iron flywheels only. No GM Nodular. Minimum thickness .870". No Modifications permitted. No aluminum flywheels allowed. Stock OEM type pressure plate and OEM Single disc clutches only.
- S) Crate Engine Program:
1. GM 602 is the only legal crate engine.
 2. Holley 500 cfm 4412 series carb only per rule #4.
 3. 6000 chip; MSD #8727CT soft touch HEI rev limiter on right side of dash out of reach of driver.
 4. -50 lbs. weight-break, 3,150 lbs. total base weight prior to additional weight penalties.
 5. No modifications permitted.
 6. No rebuilding engines – factory seals must remain intact. Exception below.
 7. MVSOC officials reserve the right to inspect the internal components of crate engines only under paid protest from another driver. Engine will not be disassembled until new GM seal kit is present.

4. CARBURETOR AND INTAKE MANIFOLD:

- A) Holley 500 CFM #4412 only. Only choke and related parts may be removed. Choke horn must remain intact.
- B) No tubes, funnels, or any other device which may control the flow of air is permitted inside of the air cleaner or between the air cleaner and the carburetor.
- C) A one piece 1" maximum in thickness, non-tapered carburetor spacer is permitted.
- D) Stock cast iron automotive 2 barrel or 4 barrel intake with adapter. No high rise or GM Z-28 replacement manifolds of any kind. No Marine intakes permitted.
- E) No porting, polishing, acid dipping, adding epoxy or similar substances allowed on intake. No gasket matching allowed.
- F) An air cleaner is mandatory at all times. No foam type air cleaners. Top and bottom of air filter housing must be solid and be same diameter, K&N filter element OK. It is permissible to attach a shield in front of the air filter housing up to half the air filter circumference. It cannot be higher than the air filter element. No air boxes.

5. TRANSMISSIONS:

- A) A stock OEM automatic transmission, with a stock working torque converter is permitted. Three and four speed manual transmissions with all gears working are permitted.
- B) Transmission must bolt to engine with no modifications.
- C) All cars with manual transmissions must have an approved scatter-shield around clutch, or a constructed shield made of a minimum of 1/4" steel over the bellhousing section of the floorboard.

6) DRIVE SHAFTS:

- A) Drive shaft and universal must be similar in design to standard production type. Only a one piece steel drive shaft is permitted.
- B) It is mandatory that two 160 degree solid steel brackets, no less than 2" wide and 1/4" thick, or steel chain, be placed not more than 12" from each universal joint and fastened to the floorboard.
- C) All drive shafts must be painted white.

7. BODIES:

- A) Bodies must be OEM steel and must remain stock.
- B) All glass must be removed except the front windshield. All chrome strips, door handles and other items must be removed. All upholstery, sound deadening, door panels, headliner material, carpeting, floor pads and seat must be removed. A Lexan rear window is optional.
- C) All body panels must remain stock and intact. Hood, roof and rear deck lid may be lightened. Front door panels may be cut out only if door bars are inside of door. Rear inner fenders must remain enclosed or must be approved by tech official. Front inner fenders may be removed. Center of trunk may be removed for fuel cell installation only. Must have trunk floor & rear inner fender wells to protect fuel cell top from track surface, may be non OEM but must be made of 22 gauge steel minimum.
- D) Bodies may be interchanged. Must stay Make to Make and be +/- 4" of chassis wheelbase from factory.
- E) Rocker Panels must remain intact as from manufacturer or subject to +25 lbs. penalty.
- F) Bumpers must be strapped to the body. Bumpers may be reinforced within confines of original bumper. Front and rear aftermarket bumper covers allowed. Fabricated bumpers must be a minimum of 3" wide and resemble the stock installation.
- G) No sharp edges. All edges must be rolled under.
- H) Full floor boards and firewalls required. All holes must be covered with a minimum 22 gauge sheet metal.

- I) Doors must be welded or bolted shut.
- J) Hooks suitable for towing must be welded to the underside of all 4 corners of the car.
- K) A non-adjustable rear spoiler, not exceeding 6" in height and not wider than the rear deck lid (unless stock per make and model) may be attached to the rear deck lid. (It is recommended that the spoiler be made of 1/4" clear Lexan). No rudders or forward brackets are allowed.
- L) Rub rail permitted

8. MIRROR:

- A) Mirrors are **NOT** permitted.

9. RADIATOR:

- A) Radiator must be mounted in engine compartment.
- B) Aftermarket and aluminum radiators are permitted.
- C) All cars will be equipped with an over-flow can.
- D) Electric fans approved.

10. SUSPENSION:

- A) All suspension components must be OEM for make (Ford to Ford, GM to GM) with no modifications except: front may have longer bolts or elongated holes to obtain camber.
- B) Springs must be OEM type. Springs may be cut and/or bent.
- C) One shock per wheel. Shock mounts may be extended along original axis to allow use of long body shock. All shocks must be stock OEM appearing. No adjustable or re-buildable shocks.
- D) OEM front and/or rear sway bars are permitted. Must be mounted in stock holes.
- E) Front spindles may be interchanged within manufactures line to allow disc brakes on early chassis only. Metric cars may use older Nova spindles.
- F) Two inch (2") right and one inch (1") left, max measured with square at top of wheel.
- G) Lowering blocks and solid spring spacers are approved for use. No twist in spacers. Front spacers may be threaded but located around shock (coil only); rear coil spacers may be a solid type. May be interchangeable. Leaf spring cars may use either lowering plates under leaf springs or screw type as long as the u bolts have to be loosened and re-tightened in order to make height adjustment. No cam-actuated front to rear adjusters for rear alignment allowed. Adjustable shackles permitted on rear leaf spring eye only. Sliders permitted, but must be bolted to mounting plate with shims adjustment.
- H) OEM rubber bushing only on rear, any bushing material on front.

11. REAR ENDS:

- A) Can be OEM stock, eight-inch (8") or nine-inch (9") Ford.
- B) Spool, mini-spool or welded only.
- C) NO limited slips. NO Detroit lockers. NO Gold Track. NO Gleason. NO traction enhancing differential.
- B) Rear end must be in stock location and must use all stock parts for attachment.
- C) No cambered axle housings. No gun drilled axles. Aftermarket axles recommended. C-clip eliminator allowed.



12. BRAKES:

- A) Four wheel, stock, foot actuated brakes are mandatory. All brakes must work.
- B) Must be solid mount. No free float. No drilled or slotted rotors.
- C) Stock or Aftermarket master cylinder permitted.
- D) Stock or Aftermarket brake pedal permitted.
- E) Stock rear disc brakes approved with 25 lbs. penalty.
- F) Remote brake adjuster must be under dash OR hood - out of driver's reach.
- G) Stock calipers for make, model and generation only.

13. ROLL BARS:

- A) Round steel tubing 1 3/4" x .090 inch or 1 5/8" x .120" minimum seamless roll-over bars are compulsory for the basic roll cage and must be approved by the Tech Inspectors. Aluminum and/or other soft metals are not permitted. Roll bar connectors must be welded.
- B) On unitized bodied cars, the cage must be attached to 6" square plates or tech approved equal, minimum 3/16" thick. The plate must be fish-plated to plates with the same specifications by four 3/8" bolts. Maximum 3/4 offset cage.
- C) A minimum of 3 door bars are required on the left side with 2 bars required on the right side. The left side door bars must curve to the outermost part of the door skin. It is required that a piece of 1/8" steel be welded to driver's side door bars. The material should be placed between the door skin and cover the seat area. As an option, the material may be welded between the door bars.
- D) A dash bar connecting the front cage uprights is required.
- E) A wing window bar is required on the driver's side and must be of approved roll bar material.
- F) Two bars may attach to the rear roll cage legs and must extend past the fuel cell. No bars from inside 4 point to beginning of front kick-up forward.
- G) All roll bars within the driver's reach, along with the steering wheel hub, must be padded acceptable to the Tech Inspector.
- H) No bars, no x-ing or tying frames together under car. Cars with bolt-on sub-frames & unibody cars may use connectors. Connectors must only run parallel to wheelbase. No X-ing outside the 4 point.

14. RADIATOR PROTECTOR:

The radiator protector will consist of a maximum of 5 bars (1 1/2" ID, schedule 40 tubing maximum material), located in the following positions: Two bars upward from the frame horns, one bar across the front of the radiator, two bars mounted in front of A-frames and connected to upright bars.

15. FUEL CELL PROTECTOR BAR:

If the fuel cell is installed through the trunk floor, the car must have a bar installed at the rear of the fuel cell. The bar must be a minimum of 1 3/4" x .090 thickness and must attach to the frame rails and extend down and across the bottom of the fuel cell, with a center support bar that attaches to the rear cross member. (Protector bar is not required if fuel cell is installed above the floor of the trunk.)

16. WINDOW SCREEN:

A nylon window screen must be installed in the left side glass opening. The minimum window screen size shall be 22" wide by 16" high. All window screen mounts must be welded to the roll cage. The window screen, when in the closed position, must fit tight. Must be secured with a quick release type lever.

17. FUEL:

- A) Fuel shall be automotive gasoline only.
- B) The gasoline shall not be blended with alcohol, ethers, or other oxygenates and it shall not be blended with aniline, or its derivatives, nitro compounds or other nitrogen containing compounds.
- C) The Speedway reserves the right to require all cars to use the same fuel.

18. FUEL CELL:

Tech Officials will reject any previously approved fuel cells, containers, or check valves which appear to be damaged, defective, or do not function properly. Fuel cell vent check valves are compulsory. No pressure systems allowed. Any concealed pressure type containers, fuel lines or actuating mechanism will not be permitted, even if inoperable. The use of a commercially manufactured fuel cell is mandatory.

- A) The maximum fuel capacity shall be 16 gallons and may not weigh more than 25 pounds empty, including mounting hardware.
- B) Must be mounted in center of trunk, a minimum of 12" ahead of rear bumper.
- C) Fuel lines is preferred to be run under the car and securely fastened to the frame. Grommets are required where passing through the trunk or firewall. If the fuel line is routed through the cab it must be fully enclosed in ¾" conduit and securely mounted to the passenger floor.

19. FUEL CELL AND FUEL CELL CONTAINER INSTALLATION:

The use of an approved fuel cell and container is mandatory. The fuel cell and fuel cell container shall be installed in accordance with the following requirements

- A) Fuel cell and fuel cell container must be fastened to the frame in a recessed support frame.
- B) Fuel cell and fuel cell container must be installed as far forward as possible in trunk compartment.
- C) Fuel cell and fuel cell container, installed in trunk compartment, must be secured with steel tubing no less than 2 lengthwise and 2 crosswise evenly spaced across the top. Tubing must be made of 1"x1"x.065 thick square steel tube. The support frame must be constructed using 2 tubes that are welded to and extend from the left side to the right side frame rails. Three tubes must be equally spaced across the fuel cell container. These tubes must be welded to the cross support tubes and extend down the front sides, rear sides, and under the fuel cell container. The bottom of the fuel cell cannot be lower than 10" from the ground.
- D) A firewall free of holes must be located between trunk and driver.

20. WHEELS:

- A) 8" maximum width steel racing wheels only, white spoke or equivalent.
- B) Maximum offset is 6", measured from bead of tire to lug nut seat. No Bleeders.
- C) Wheel studs will be a minimum of 1/2". Stud must pass completely through nut when wheel is tight.
- D) Maximum up to 1 inch wheel spacer allowed if 5 inch or less offset wheel is used.

21. TIRE RULE:

- 1) Class Tire: American Racer 970 or Hoosier 970
- 2) You must start the Main Event on the tires used for Qualifying
- 3) No tire softener

22. HELMETS & NECK ROLLS :

Head and neck restraints are highly recommended - eg. HANs or Hutchens Devise It is recommended that all helmets meet the specifications set forth in the Federal Motor Vehicle Safety Standard regulations or the

American Standards Institute, Inc. Snell 90 minimum. Neck rolls are required, unless using a head and neck restraint.

23. SEATS:

- A) Aluminum racing type seat only. No fiberglass or stock bucket seats.
- B) It is recommended that all seats have padded rib protectors and seat leg extensions on both sides.
- C) A padded head rest approved by Tech Officials is required.
- D) Seat and seat belts must mount to the roll cage, not to the floor pan. Must use Grade 8 bolts and large flat washers.

24. SEAT BELT AND SHOULDER HARNESS:

- A) A quick release lap belt no less than 3" wide is compulsory. Both ends of the lap belt must be fastened to the roll bar with high quality bolts, not less than 3/8" in diameter.
- B) Shoulder harness must be no less than 3" wide unless used with a HANS Device and must be installed per manufacturer installation guidelines. Where the harness crosses the roll cage, it must pass through a guide that will prevent the harness from sliding from side to side. Shoulder harness inertia reels cannot be used.
- C) A center (crotch) belt must be securely mounted to lower seat frame at the bottom.
- D) Where the belt passes through the seat edges, it must have a grommet installed, be rolled, and/or padded to prevent cutting the belt.
- E) All seat belts and shoulder harnesses must connect at the lap belt with an approved quick release buckle.
- F) Seat belts must be dated by the manufacturer and must not be used beyond 5 years after the manufacture date.

25. ELECTRICAL SWITCH LOCATION:

A clearly marked Master Battery shut-off switch within 6 inches of the center of the car must be installed. Emergency Responders must be able to reach the switch from both sides of the car. A brightly painted, solid square of at least 4 inches square must surround the switch. The shut-off switch must be operational at all times.

26. STEERING:

- A) A steel quick release steering wheel is strongly recommended.
- B) Center of steering wheel hub must be padded acceptable to Tech Officials.
- C) Factory tilt steering wheel/column must be removed. Straight collapsible shaft permitted. Universal Joints Required.
- D) Factory Steering Box Only. Aftermarket steering quickener permitted. No Rack & Pinion Steering.

27. ACCESSORIES:

Race cars will not be permitted to carry onboard computers, micro-controlled processors, recording devices, electronic memory chips, digital readout gauges or traction control devices.

28. MUFFLERS:

- A) All cars shall be equipped with exhaust systems, including mufflers with no leaks or holes.
- B) No cars shall exceed 92 D.B.A. at 100 feet.
- C) Maximum exhaust shall be 2 1/2" I.D. Exhaust pipes must extend past driver and exit between door and the rear tire. Any exhaust above 2 1/4" subject to 25 lbs. weight penalty.



29. BATTERY:

A) Battery may remain in the engine compartment, be securely mounted in an enclosed box and accessible from under the hood or relocated inside of car. If inside of car, it must be securely mounted in a protective container.

It can be no further back than the stock rear firewall and cannot protrude through the floor. The battery box will be six sided and not significantly larger than the battery.

30. NUMBERS:

A) A minimum 24" high, 3" wide number is required on the door area (and only on door area) of both sides of car. A minimum 30" high, 3 stroke number is required on the top of car facing the right side.

B) A minimum 8" high white number is required on the upper right corner of the windshield.

C) Numbers will be assigned by the Speedway office and must be renewed each year.

31. FIRE CONTROL:

A) Race cars must have fire extinguishers securely mounted within reach of the driver. This extinguisher must be mounted on a metal mounting bracket (no extinguisher may be taped to roll bars). It is strongly recommended that each car have built-in fire extinguisher equipment, but it cannot be of the dry powder type. ALL ENTRANTS SHOULD HAVE IN THEIR PITS AT ALL TIMES A FULLY CHARGED 15 POUND CAPACITY DRY POWDER FIRE EXTINGUISHER OR ITS EQUIVALENT, SHOWING CURRENT INSPECTION CERTIFICATE.

B) It is mandatory that , AT ALL TIMES, suits of fire retardant material that effectively cover the body from neck to ankles and wrists, along with fire retardant or leather shoes and gloves, to be worn on the racing surface. It is strongly recommended that at all times drivers wear at least a 4 layer driving suit made of fire retardant material that effectively covers the entire body. It is also strongly recommended that drivers wear long underwear, headgear, gloves and socks made of fire retardant material.

C) It is strongly recommended that at all times while the car is being refueled or while fuel is being transported from the pit area, all crewmen involved should wear at least a 4 layer suit made of fire resistant material that effectively covers the body. It is also strongly recommended that the crew members wear long underwear, headgear, socks, gloves and shoes made of fire resistant material, plus protective eye wear.

D) NO ANTIFREEZE; NO SYNTHETIC OILS OR ADDITIVES IN THE OILS

E) ALL SAFETY REQUIREMENTS ARE MANDATORY.



RULE REVISION LOG

| DATE | RULE | REVISION | WHY | APPROVAL |
|-------------|-------------|--|----------------------|-----------------|
| 11/21/2024 | 2E | Raceceiver required | Quicker lineups | Tony Udem |
| 11/21/2024 | C2 | Adjusted to accommodate body rule change. | Conflicting Rule | Tony Udem |
| 11/21/2024 | C4 | OEM 4-Link rear suspension +1% Left | Balance competition | Tony Udem |
| 11/21/2024 | C6 | Full floater rear-end +25 lbs. | Format Edit | Tony Udem |
| 11/21/2024 | C7 | Non-factory rocker panels | Rule clarification | Tony Udem |
| 11/21/2024 | 8A | No Mirrors Permitted | Per Drivers | Tony Udem |
| 11/21/2024 | 11D | 9" or 8" Rear-end permitted in all makes and models | Cost savings | Tony Udem |
| 11/21/2024 | 12C | Aftermarket brake master-cylinder | Align rule with TSHS | Tony Udem |
| 11/21/2024 | 12D | Aftermarket brake pedal | Align rule with TSHS | Tony Udem |
| 11/21/2024 | 12F | Remote brake bias adjuster | Align rule with TSHS | Tony Udem |
| 11/21/2024 | 13F | Removed RF kick-up pipe ban. | Align rule with TSHS | Tony Udem |
| 11/21/2024 | 18C | Adjusted Fuel-line rule to accommodate additional cars | Align rule with TSHS | Tony Udem |
| 12/27/2024 | 8A | "Mirrors are not permitted." Clarification | Rule clarification | Tony Udem |
| 12/27/2024 | 24B | Adjusted for Hans Device style seat belts | Rule clarification | Tony Udem |
| 12/27/2024 | 4C | Adjusted to 1" maximum height, non-tapered | Rule clarification | Tony Udem |
| 12/27/2024 | 11x | Clarified rule – No enforcement change | Rule Clarification | Tony Udem |
| 1/13/2025 | 3R | Flywheel rule clarified. | Rule Clarification | Tony Udem |