

# 2011 RULEBOOK ALL - MOTOR (DOMESTIC)

REVISED 10/24/11

**Class Designation:** The class designation is: A/M

**General Safety:** All vehicles must conform with general IHRA safety rules.

**Body:** Any year vehicle is allowed. Lightweight components are limited to hood, front fenders, decklid, hatches, sunroofs, wings, ground effects, and bumpers only. Roof, Quarter panels, and doors must remain steel. One-piece front ends are not permitted. No body parts may be removed during competition.

**Chassis:** All cars must retain complete stock chassis, floorboard, firewall, and frame rails. Notching of chassis for clearance is permitted. Aftermarket "K" members are permitted.

**Suspension:** All cars must utilize stock front and rear suspension and mounts. Aftermarket front control arms, rear control arms, and sub-frame connectors are permitted. Aftermarket struts and shocks are permitted. Ladder bars, four links, and wheelie bars are prohibited on all cars.

**Lights:** Headlights and brake lights are required (one headlight may be removed for induction).

**Windows:** All windows must be OEM glass.

**Interior:** Stock dashboard and full interior from front seats forward is required (passenger seat may be removed). Aftermarket seats, gauges, and interior are permitted.

**Exhaust:** Muffler(s) are required unless vehicle is turbocharged. Exhaust may exit anywhere.

**Electronics:** Two-steps, data loggers, aftermarket ECU's, and engine management systems are allowed.

**Driveline:** Aftermarket axles, ring and pinions, final drive, spools, and differentials are permitted. Other OEM or aftermarket center sections and rear-ends may be replaced only if it is a direct bolt in. IRS suspension cars may convert to straight axle only if it is a direct bolt in.

**Transmission:** Manual or Auto transmissions are permitted. Any style automatic transmission is permitted. Trans-brakes are permitted. Manual transmissions are permitted to use aftermarket stock-style clutch-assisted transmissions. Sequential transmissions are prohibited. Aftermarket bell housings are permitted.

**Clutch:** Three discs maximum (any type of disk material is permitted). Clutch must be manually operated by driver's foot.

**Shifter:** Shifter must be H-pattern. Strain gauges are permitted. Air shifters and electric shifters are prohibited.

**Fuel:** Gasoline and E-85 permitted. Alcohol is prohibited.

**Fuel System:** Electric fuel pumps only are permitted. Aftermarket fuel cells are permitted, and may be mounted anywhere.

**Oiling System:** Dry sump oil system or external oil pumps prohibited unless OEM equipped and engine is using complete OEM oiling system

**Tires:** Maximum size slick or bias ply tire is 26.0" x 11.5". Any size DOT radial tire is permitted, except 315/60/15, 325/50/15, 295/55/15, or 295/60/15.

## 8-Cylinder Engines – Chevy LS series

**Engine:** This is for cam only cars, with bolt-ons. Cars equipped with straight axle are permitted to run the following factory blocks: LS1, LS2, LS3, and LS6 series blocks only. Cars equipped with IRS suspension are permitted to run the following factory blocks: LS1, LS2, LS3, LS6, and LS7 series blocks only. No aftermarket blocks are permitted. Internal engine modifications are prohibited except for overbore, aftermarket camshafts, hydraulic lifters, and valve springs only. See chart below for max CID. External bolt-on parts are allowed.

**Induction:** Engine must be EFI. All OEM intakes are permitted. The only aftermarket intakes permitted are: BBK intakes, Typhoon intakes, and Fast 78mm, 90mm, 92mm, and 102mm intakes.

**Cylinder Heads:** Any valve job is permitted. Cylinder heads must remain stock, no port work or milling of cylinder head.

- OEM cylinder heads only are permitted with the following casting numbers: 241, 243, 317, 706, 799, 853, 862, 8452.

**Power Adders:** Turbochargers, Superchargers, and Nitrous Oxide are prohibited. All nitrous bottles and solenoids must be removed from car and nitrous nozzles must be capped.

Block	Cylinder Heads	Max Displacement	Car & Driver Minimum Weight
LS1	LS1 or LS6 heads.....Un-Ported as cast	Up to 348ci.	3050 lbs.
LS1	LS2 heads.....Un-Ported as cast	Up to 348ci.	3150 lbs.
LS1	LS3 heads.....Un-Ported as cast	Up to 348ci.	3350 lbs.
LS6	LS6 heads.....Un-Ported as cast	Up to 348ci.	3050 lbs.
LS2	LS1, LS2, or LS6 heads.....Un-Ported as cast	Up to 366ci.	3150 lbs.
LS2	LS3 heads.....Un-Ported as cast	Up to 366ci.	3350 lbs.
LS3	LS1, LS2, LS3, or LS6 heads...Un-Ported as cast	Up to 380ci.	3350 lbs.
LS7	LS7 heads.....Un-Ported as cast	Up to 427ci.	3500 lbs.

## 8-Cylinder Engines - Ford 302W

**Engine:** Any 302 style 8.2 deck block is permitted. Internal engine modifications are limited (overbore accepted). Factory stroke is required. Max CID is 313ci. Maximum camshaft lift .550 intake and .550 exhaust any duration as checked at valve. Roller Rockers are permitted. External bolt-on parts are allowed.

**Induction:** Engine may be EFI or carbureted. All aftermarket EFI intakes are permitted. Spyder and Sheetmetal Intakes are prohibited. Carburetor Induction is limited to a single plane or dual plane intake. 600cfm or 650cfm style carburetors only are permitted.

**Cylinder Heads:** Any valve job is permitted. Porting is prohibited on all cylinder heads. Only the following cylinder heads are permitted:

- 302W: OEM E7, Cast Iron GT-40, and Aluminum GT-40X
- Trickflow Twisted Wedge as cast: 51400002, 51400004, 51400003, 51400005, 51400010, and 51400011
- AFR 165cc Heads: 1402, 1472, and 1399
- Holley Aluminum Heads as casted
- Brodix 1051004: 171cc Cylinder Head
- Edelbrock: 60329, 60229, 60379, and 60289 only
- Dart Pro 1 Aluminum 175cc Head
- RHS Pro Action: 35014-01, 35014-02, 35010-02, and 35010-01
- World Products Cast Iron Windsor JR: 053030-1 and 053030-2

**Power Adders:** Turbochargers, Superchargers, and Nitrous Oxide are prohibited. All nitrous bottles and solenoids must be removed from car and nitrous nozzles must be capped.

Block	Cylinder Heads	Max Displacement	Car & Driver Minimum Weight
302W	OEM Stock E7 heads.....Un-Ported as cast	Up to 313ci.	2650 lbs.
302W	OEM Cast Iron GT-40 heads.....Un-Ported as cast	Up to 313ci.	2700 lbs.
302W	Aftermarket Aluminum Heads.....Un-Ported as cast	Up to 313ci.	2900 lbs.

\* Automatic overdrive transmissions: deduct 100 lbs.

\* Carbureted Cars: add 25 lbs.

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## 8-Cylinder Engines - Ford 5.0 Modular

**Engine:** This is for cam only cars, with bolt-ons. Only OEM 5.0 modular blocks are permitted with stock valve angles. Internal engine modifications are limited (overbore accepted). Factory stroke is required. Max CID is 321ci. Maximum camshaft lift .550 intake and .550 exhaust any duration as checked at valve. External bolt-on parts are allowed.

**Induction:** Engine must be EFI. All OEM intakes are permitted. The only aftermarket intakes permitted is a Boss Intake.

**Cylinder Heads:** Any valve job is permitted. OEM cylinder heads only are permitted. Cylinder heads must remain stock, no port work or milling of cylinder head.

**Power Adders:** Turbochargers, Superchargers, and Nitrous Oxide are prohibited. All nitrous bottles and solenoids must be removed from car and nitrous nozzles must be capped.

Block	Cylinder Heads	Max Displacement	Car & Driver Minimum Weight
5.0 Modular	4-valve OEM Heads.....Un-Ported as cast	Up to 313ci.	3200 lbs.
5.0 Modular	4-valve OEM Heads..... Porting Permitted	Up to 313ci.	3275 lbs.
5.0 Modular	4-valve OEM Heads.....Un-Ported as cast	314ci – 321ci.	3250 lbs.
5.0 Modular	4-valve OEM Heads..... Porting Permitted	314ci – 321ci.	3325 lbs.

## 8-Cylinder Engines - Ford 4.6 Modular

**Engine:** Only OEM 4.6 modular blocks are permitted with stock valve angles. Internal engine modifications are limited (overbore accepted). Factory stroke is required. Max CID is 302ci. Maximum camshaft lift .550 intake and .550 exhaust any duration as checked at valve. External bolt-on parts are allowed.

**Induction:** Engine must be EFI. All OEM intakes are permitted. The only aftermarket intakes permitted are: Bullitt, Trickflow, P51, C&L, JPC, and Professional Products intakes. Sheetmetal Intakes are prohibited.

**Cylinder Heads:** Any valve job is permitted. Milling of any cylinder heads are prohibited.

- 2-valve engines may use Un-Ported OEM cylinder heads, Ported OEM cylinder heads, Ford Racing SVO 2v cylinder heads (Un-Ported as cast), or Trickflow 2v cylinder heads (Un-Ported as cast).
- 3-valve engines may use Un-Ported OEM cylinder heads or Ported OEM cylinder heads only.
- 4-valve engines may only use Un-Ported OEM cylinder heads.

**Power Adders:** Turbochargers, Superchargers, and Nitrous Oxide are prohibited. All nitrous bottles and solenoids must be removed from car and nitrous nozzles must be capped.

Block	Cylinder Heads	Max Displacement	Car & Driver Minimum Weight
4.6 Modular	2-valve OEM Heads.....Un-Ported as cast	Up to 302ci.	2875 lbs.
4.6 Modular	2-valve OEM Heads.....Porting Permitted	Up to 302ci.	2975 lbs.
4.6 Modular	2-valve Ford Racing SVO 2v Heads.....Un-Ported as cast	Up to 302ci.	2975 lbs.
4.6 Modular	2-valve Trickflow 2v Heads.....Un-Ported as cast	Up to 302ci.	2975 lbs.
4.6 Modular	3-valve OEM Heads.....Un-Ported as cast	Up to 302ci.	2925 lbs.
4.6 Modular	3-valve OEM Heads..... Porting Permitted	Up to 302ci.	3025 lbs.
4.6 Modular	4-valve OEM Heads.....Un-Ported as cast	Up to 302ci.	3100 lbs.
4.6 Modular	4-valve OEM Heads..... Porting Permitted	Up to 302ci.	3200 lbs.

\* Automatic overdrive transmissions: deduct 100 lbs.

\* Single plane intakes: add 25 lbs.

\* Carbureted Cars: add 25 lbs.

**Crossover Class:** These classes run under their own set of rules and ignore all rules above. There may be a small adjustment for some classes. (If you have ever competed in any of the classes below at that sanctioned event, you must run under the Crossover rules)

Series	Series Website	Class Name	Adjustments
NMRA	nmradigital.com	Pure Street	Add 75 lbs.