

CLASS 6100

SPEC TRICK TRUCK WITH SPEC SEALED ENGINE - TRUCKS/SUV'S

GENERAL REGULATIONS

Class entrants shall comply with all class and applicable general regulations. All parts are to be approved by BITD.

COMPETITION REGULATIONS

This is an engine spec class and all components will be considered spec unless it states otherwise within these class rules. Engines can be spec crate engines from Ford & GM manufacturers or rebuilt to the same specifications as shown below in **SCR24: ENGINE LOCATION & DISPLACEMENT**. Engines must be left **“AS DELIVERED”** from approved BITD engine builders. Only modification noted below are allowed. Engines must be sealed and tagged by Approved BITD engine builders (see list below). **Motor must be tagged prior to start of race or penalties up to and including disqualification can be assessed.** Only engine kits listed will be allowed.

All engines regardless of manufacture, Ford or GM, must be purchased through Approved BITD engine builders (see list below).

Approved BITD engine builders (see list below) will tag and seal the engines before being shipped to the customer

Contact Approved BITD engine builders (see list below) for more information.

Note: The SCR abbreviations refer to the cross-reference listings in the front of this book and are part of the class rules. Where a conflict between the cross-referenced listings and a rule contained under this class occurs, the rule contained under this class has precedence.

SAFETY EQUIPMENT

SCR1: HELMETS

SCR2: PROTECTIVE CLOTHING

SCR3: EYE PROTECTION

SCR4: HEAD AND NECK RESTRAINTS

SCR5: FIRST AID KIT

SCR6: BREAKDOWN SAFETY DEVICES

SCR7: HORNS

SCR8: REFLECTORS

SCR9: FIRE EXTINGUISHER

SCR10: SURVIVAL SUPPLIES

SUSPENSION COMPONENTS

SCR11: SHOCK ABSORBERS & BUMP STOPS

SCR12: SECONDARY SUSPENSION

SCR13: WHEELS & TIRES

Maximum tire size of 40" tall

Knock-off hubs are permitted.

SCR14: FASTENERS

STEERING & BRAKE COMPONENTS

SCR15: STEERING

SCR16: BRAKES

ELECTRICAL SYSTEM

SCR17: IGNITION - Control Packs must have easy access for removal and visual inspection.

SCR18: BATTERIES

SCR19: LIGHTS

SCR20: STARTER

FUEL SYSTEM

SCR21: FUEL

SCR22: FUEL TANKS

Safety fuel cells are required.

SCR23: FUEL FILLER, VENTS & CAPS

ENGINE TRANSMISSION & DRIVELINES

SCR24: ENGINE LOCATION & DISPLACEMENT

Engine is limited to a sealed 8 cylinder. Only those engines listed here are permitted. See below list. All engines must be purchased through Approved BITD engine builders (see list below).

NOTE: Starting January 2020 we will only accept the Cup style tags from Approved BITD engine builders (see list below). NO Cable tags will be allowed.

List of approved engine builders/sealers

- Turn Key Engine Supply - (760) 966-2663
- Jeff Ginter Racing Engines - (562) 972-9763
- Moruzzi Race Motors - (909) 754-4941
- Dougan's Racing Engines - (951) 681-1961
- Danzio Performance Engineering (951) 245-2537
- Wiks Racing Engines - (702) 837-2522
- Herbert Performance Company - (775) 324-0222
- Redline Racing Engines - (714) 777-5758

A) Engines may be mounted in the front or middle of the vehicle. All vehicles must have a live/solid rear axle.

B) ** MUST MAKE VEHICLE ACCESSIBLE FOR REMOVAL OF VALVE COVER, ACCESS TO THROTTLE BODY, ACCESS TO ECU AND OBD PORTS FOR TECH-INSPECTION.

C) **BITD** Approved Engine Types

1. Ford 5.0L V8 engine kit part number **M-6007-M50C** with wire loom and control pack part number **M-6017-M50B**
2. General Motors LS3 (430HP) V8 engine kit part number **19370416** with wire loom and control pack part number **19258270** - **Upgrade option:** GM Cam Shaft part number **88958770** that comes in the GM LS3 (525HP) motor. Approved BITD engine builders (see list below) will be the only engine builder allowed to perform this upgrade
3. Ford 3.5 twin turbo Ecoboost engine
4. Ford 351 V8 Engine - Kit Part Number **M-6007-S374W**.
5. Ford Boss (535 HP) - Part number **M-6007-Z2427FFT**
6. GM LS3 (525 HP) - Part number **19370413** with GM Control Pack Part number **19354332**
7. GM LT1 - Part number **19416592** with LT1 Control Pack Part number **19417227**. Can use intake manifold part # 12697714.
8. Billet Fuel rails allowed.
9. Water pumps are open, must be mechanical factory concept, no electric pumps allowed.
10. Exhaust manifolds are open to install aftermarket exhaust.

11. All Ford Motors are allowed to use either of these two carburetors – 650 CFM Holley part# **80541-1** or 750 CFM Holley part#**80528-1**

All engines regardless of manufacture must be purchased thru Approved BITD engine builders (see list below), i.e., Ford, GM, etc.... Approved BITD engine builders (see list below) will tag and seal the engines before being shipped to the customer.

Beginning March 1, 2022 Class 6100 vehicles will be required to have an engine sealed and tagged by one of the Approved BITD engine builders (see list below) to participate.

SPECIAL NOTE: Spec Engine control module programming open.

Engines must be tagged and sealed by Approved BITD engine builders (see list below) (see list below). All parts included in the create engine kit will be considered part of the engine including, intake, injectors, valve covers and oil pan, unless otherwise noted.

LS engines must use factory GM LS style wet sump oil pan, no aftermarket pans are permitted. **GM** pans may be modified to fit chassis and add volume. Pans must be inspected and installed by Approved BITD engine builders when engine is sealed.

Ford: No Dry Sump oil systems allowed. All Ford engines must use wet sump stock oil pan as delivered in the engine kit from the manufacturer. Ford pans may be modified to fit chassis, modified pans must use stock baffling and no increase in volume is permitted. Pans must be inspected and installed by Approved BITD engine builders when engine is sealed.

GM: No Dry Sump oil systems allowed. All GM engines will be open to any GM wet sump oil pan but must be approved and installed by Approved BITD engine builders.

No external oil pumps allowed

You may install an external oil cooler and external oil filter but must be done without modification to the engine block or oil system in any way. Oil filter adapters are permitted.

3-Quart oil accumulator is allowed.

GM Engine Only: A race quality harness is an option to use with the required GM Factory ECU.

Also, Engine can have a replacement high volume wet sump oil pump an aftermarket harmonic balancer and timing chain guide. All must be installed by Approved BITD engine builders (see list below) before sealing of engine.

SCR25: ENGINE REPLACEMENT or REBUILD – Beginning March 1, 2022, BITD will allow new crate motor package, or a rebuilt motor (same engine rules at crate apply) by Approved BITD engine builders (see attached list). All parts must be factory spec part number as per approved crate engine stated above, GM, Ford or other TBD.

Engine rebuilds are allowed under the following regulations:

1. All parts must remain factory spec, per crate engine part number unless otherwise stated below.
2. An engine can **ONLY** be supplied new or rebuilt by an approved BITD Engine Builders (see attached list), if you have any questions, call BITD for approval.
3. All engines must have the following:
 - a. Cup Tags only – Must have Engine Builder/Sealer Identification and Serial Number on tag.
 - b. Builder must have available upon request by BITD, a “log or spec sheet” of all engines (new of rebuilt) prior to Technical Inspection for use at a BITD race.
4. All replacement parts must be Factory GM part # as the stock part it is replacing and installed as purchased from the manufacture with exception of:
 - a. Aftermarket piston set - must be same configuration and design as factory piston set.
 - b. Ring set – rings must be of convention style factory ring set, no gapless rings, no gas ported rings. The use of “tool steel top ring” is permitted. All rings and pistons must use factory ring package which is 1.5 top and 1.5 second x 2.5 - 3 oil rings.
 - c. Head gaskets – the use of ANY head gasket is permitted so that a 10.7:1 compression ratio will be achieved.
 - d. Oil pump – see notes above in SCR 24
 - e. Timing Chain – must retain factory stock GM single roller. No adjustable timing set allowed.

- f. Timing chain guide - #12588670 allowed as replacement.
 - g. Camshaft – part number GM #88958770 only, CAN NOT BE MODIFIED
 - h. Lifters – Must be original GM #12649190
 - i. Crank and Rod Bearings - Stock, Clevite 77 or any style Babbit bearings allowed.
 - j. Valve Seals – Must be original GM (top hat style only)
 - k. Valve Springs – Must be original GM #12713265
 - l. Push Rods – Open as long as 5/16th (five sixteenths) diameter and maintain a MAXIMUM WALL THICKNESS OF 0.080
 - m. Injectors – must be factory original GM LS3 42CC only, NO MODIFICATIONS ALLOWED.
 - n. **Engine Block - can be reconditioned with a maximum of a 4.070 bore.**
 - o. Crankshaft - may be turned to 0.010 under, and NO OFF-SET GRINDING.
 - p. Minimal machining of heads and surfacing of block is allowed as long as stock compression ratio of 10.7:1 is maintained with head gaskets or machined piston dish.
 - q. None of the following will be allowed: Porting, Port-matching, Polishing, Deburring, offset crankshaft grinding, valve seat grinding or Machining of any kind (except stated above) are strictly prohibited.
 - r. None of the following will be allowed: coatings, heat treating, cryogenic treating of any engine components with exception of aftermarket pistons
5. BITD reserves the right to have an engine pulled for disassembly and inspection, based on a BITD discretion or a competitor's protest.
6. Any racer who is found to have an engine not meeting the approved BITD rules, will:
- a. Disqualification of the race entered.
 - b. All points accumulated in this class for the current season will be forfeited.
 - c. Driver of record will receive a 1 (one) race ban.
 - d. 1 year
 - e. Driver of Record will be required to pay a \$5,000.00 fine/penalty before entering another BITD event.
7. Any engine builder found to have provided an engine not meeting the approved BITD rules, will:
- a. Receive a 1 (one) year ban from tagging all engines with BITD.
 - b. All other engines tagged by said company, will have to be re-inspected and tagged by other Approve BITD Engine builder (see attached list) at the cost of the penalized engine builder.
 - c. Fined \$25,000.00 fee before being allowed to tag at the end of the ban period.

no engine rebuilds are allowed. If engine fails a new engine must be purchased thru Approved BITD engine builders (see list below). See SCR24:

SCR26: TRANSMISSION

All vehicles must use a Turbo 400 automatic transmission only. This will be the only transmission type allowed.

All transmissions must have 3 forward gears and a working reverse.

DIFFERENTIAL

Rear axle assembly must use a light automotive type straight axle housing with standard Ford 9" removal type ring & pinion third member. Standard type bearings, drive plate, floating Hub is to be used. Ring and pinion size, ratio open. Must be approved by

BITD.

No overdrive units allowed. *** **ONLY SINGLE RATIO UNDERDRIVE ALLOWED.**

SCR26.5: 2-WHEEL DRIVE ONLY

(1) **One Exception only** – Race Vehicle #6130 will be grandfathered into rules, but race vehicle #6130 must comply with the following specifications:

1. Transfer Case must be a one-to-one ratio in high range only. Transfer case must be tagged, sealed and approved by BITD Chief Car/Truck Technical Inspector.
2. Transfer case must have lockout installed for low range.

SCR27: THROTTLES

Fly by wire throttle pedal assemblies must be used if the engine kit is delivered from the manufacturer with electronic throttle pedal configuration.

SCR28: EXHAUST**SCR29: DRIVESHAFTS****SCR30: FLYWHEEL SHIELDS****SCR31: FLUID COOLERS****SCR32: AUXILIARY EQUIPMENT****SCR33: SUPERCHARGERS & TURBOCHARGERS**

No Superchargers or Turbochargers permitted in this class

No forced induction system of any kind

VEHICLE SAFETY EQUIPMENT**SCR34: ROLL CAGES****SCR35: SAFETY HARNESS****SCR36: SAFETY NETS****SCR37: SEATING**

Minimum of two (2) and Maximum of three (3) seats may be used but must meet with **BITD APPROVAL**.

GENERAL VEHICLE COMPONENTS**SCR38: DRIVER'S COMPARTMENT****SCR39: DOORS & LATCHES****SCR40: FIREWALLS****SCR41: BALLAST****SCR42: WEIGHT:** No Weight Limit**SCR43: FLOORBOARDS****SCR44: BUMPERS****SCR45: MIRRORS****SCR46: SKID PLATES****SCR47: STORAGE****SCR48: FENDERS**

Vehicle must have fenders. No open wheeled vehicles permitted.

SCR49: CHASSIS & BODY**CHASSIS**

Wheelbase and overall width are open. (Track Width Open)

All vehicles must be configured like a **TRUCK** or **SUV**.

All must use an automotive type straight axle housing and third member with either 3 or 4 link rear suspension configurations.

BODY

Body must resemble a truck *or SUV* and must have emblem of manufacture of type of truck (ie. Ford Oval or Chevy bowtie) Overall **width and length is unlimited**.

SCR50: HOSES**SCR51: IDENTIFICATION MARKERS**

BITD will assign vehicle numbers.

SCR52: ADVERTISING ON VEHICLES**SCR53: WORKMANSHIP****SCR54: RADIO EQUIPMENT**

CLASS 6200

OPEN-WHEELED VEHICLES UNLIMITED

SINGLE & TWO-SEAT VEHICLES

SPEC ENGINE ONLY

GENERAL REGULATIONS

Class entrants shall comply with all class and applicable general regulations.

COMPETITION REGULATIONS

This is an open class and all components will be considered open unless it states otherwise within these class rules. **ONE OR TWO SEAT OPEN WHEELED CARS, NO FENDERS, SPEC ENGINE ONLY**

NOTE: Independent Rear Suspension Only (No solid rear axle allowed)

Note: The SCR abbreviations refer to the cross-reference listings in the front of this book and are part of the class rules. Where a conflict between the cross-referenced listings and a rule contained under this class occurs, the rule contained under this class has precedence.

SAFETY EQUIPMENT

- SCR1: HELMETS
- SCR2: PROTECTIVE CLOTHING
- SCR3: EYE PROTECTION
- SCR4: HEAD AND NECK RESTRAINTS
- SCR5: FIRST AID KIT
- SCR6: BREAKDOWN SAFETY DEVICES
- SCR7: HORNS
- SCR8: REFLECTORS
- SCR9: FIRE EXTINGUISHER
- SCR10: SURVIVAL SUPPLIES

SUSPENSION - Independent Rear Suspension Only (No solid rear axle allowed)

STEERING & BRAKE COMPONENTS

- SCR16: BRAKES
Steering or turning brakes are permitted.

ELECTRICAL SYSTEM - OPEN

TIRES – MAXIMUM TIRE SIZE 37" TALL

FUEL SYSTEM

- SCR22: FUEL TANKS
Safety fuel cells are required.

SCR23: FUEL FILLER, VENTS & CAPS

TRANSMISSION – OPEN

ENGINE & DRIVELINES

SCR24: ENGINE LOCATION & DISPLACEMENT

This is an engine spec class and all components will be considered spec unless it states otherwise within these class rules. Engines will be spec crate engines from Ford & GM manufacturers. Engines must be sealed and tagged by Approved BITD engine builders (see list below). **Motor must be tagged prior to**

start of race or penalties up to and including disqualification can be assessed. Only engine kits listed will be allowed.

All engines regardless of manufacture, Ford or GM, must be purchased through Approved BITD engine builders (see list below).

Approved BITD engine builders (see list below) will tag and seal the engines before being shipped to the customer

Contact Approved BITD engine builders (see list below) for more information.

Contact Approved BITD engine builders (see list below) at www.turnkeyenginesupply.com

3915 Oceanic Drive, Oceanside, CA, 92056, 760-966-2663

Only those engines listed here are permitted. See below list.

1. Ford 5.0L V8 engine kit part number **M-6007-M50S** - must be purchased through Approved BITD engine builders (see list below)
2. General Motors LS3 (430HP) V8 engine kit part number **19370416** (Rev 5/19/14) - must be purchased through Approved BITD engine builders (see list below).
3. Ford 3.5 twin turbo EcoBoost (Turbocharged) engine - must be purchased through Approved BITD engine builders (see list below).
4. Ford 2.0L EcoBoost (Turbocharged) I-4 engine kit part number M-6007-20T – electronics open
5. Ford 2.3L EcoBoost (Turbocharged) I-4 engine kit part number – electronics open
6. Ford 3.5 twin turbo EcoBoost (Turbocharged) engine – must be purchased through Approved BITD engine builders (see list below).
7. Billet Fuel rails allowed.
8. Water pumps are open, must be mechanical factory concept, no electric pumps allowed.

All engines regardless of manufacture must be purchased thru Approved BITD engine builders (see list below), i.e. Ford, GM, etc. Approved BITD engine builders (see list below) will tag and seal the engines before being shipped to the customer.

Contact Approved BITD engine builders (see list below) at www.turnkeyenginesupply.com – 3915 Oceanic Drive, Oceanside, CA, 92056, 760-966-2663.

SPECIAL NOTE: Spec Engine control module programming open.

Engines must be tagged and sealed by Approved BITD engine builders (see list below) who is approved by **BITD**. Only Approved BITD engine builders (see list below) may be used for engine tagging. All parts that come in the engine kit will be considered part of the engine including Intake – upper and lower, valve covers, Oil Pan.

LS engines may use factory GM LS style wet sump oil pan, or aftermarket external dry sump oiling system. GM pans may be modified to fit chassis. Pans must be inspected and installed by Turnkey when engine is sealed.

GM: Water pump Open to aftermarket mechanical pump, no electric pumps allowed

You may install an external oil cooler and external oil filter but must be done without modification to the engine block or oil system in any way. Oil filter adapters are permitted.

3-Quart oil accumulator is allowed.

GM Engine Only: Engine can have a replacement high volume wet sump oil pump, timing chain guide may be replaced with upgraded GM chain guide and aftermarket harmonic balancer and aftermarket mechanical throttle limited to 92mm.

All must be installed by Approved BITD engine builders (see list below) before sealing of engine.

SCR25: ENGINE REPLACEMENT

No engine rebuilds are allowed. If engine fails a new engine must be purchased and tagged and sealed by Approved BITD engine builders (see list below).

SCR27: THROTTLES

SCR28: EXHAUST

SCR29: DRIVESHAFTS

SCR30: FLYWHEEL SHIELDS

SCR31: FLUID COOLERS

SCR32: AUXILIARY EQUIPMENT

VEHICLE SAFETY EQUIPMENT

SCR34: ROLL CAGES

SCR35: SAFETY HARNESS

SCR36: SAFETY NETS

SCR37: SEATING

Maximum of three (3) seats may be used but must meet with **BITD APPROVAL**.

GENERAL VEHICLE COMPONENTS

SCR38: DRIVER'S COMPARTMENT

SCR39: DOORS & LATCHES

SCR40: FIREWALLS

SCR43: FLOORBOARDS

SCR45: MIRRORS

SCR46: SKID PLATES

SCR48: FENDERS, NOT ALLOWED

SCR49: CHASSIS & BODY

SCR51: IDENTIFICATION MARKERS

SCR52: ADVERTISING ON VEHICLES

SCR53: WORKMANSHIP