

1:6 Scale Truck Rules

The Intro

The purpose of set rules is to enable drivers to compete in a controlled class which offers both a low cost level and a level playing field. This class of racing and rule set allows for a very limited amount of aftermarket parts or modifications that can be done to your truck. All aftermarket parts have been selected because they offer improved durability or safety and not because they offer an increase in speed. The reason behind this is to limit the cost to all racers. **No other modifications are permitted other than the modifications listed.**

1.1 TECHNICAL SPECIFICATIONS

1. All 1:6 trucks have to be genuine scale in all details and proportions and be a fully detailed model of an existing 1:1 racing truck. If the allowed tolerances are used, then all parts of the model in that particular view have to be within the same sign (wheelbase-, length- / wheelbase +, length +). Mixtures of truck designs are not allowed.

1.2 GENERAL SPECIFICATIONS

1. The truck body has to comply with the calculated scale dimensions 1:6 with the allowance of using the following tolerances.

- a) Length: within scale +/-5%
- b) Width: within scale *and must be a max. 435mm*
- c) Height: within scale +/-5%

2. Tank capacity: 700 cc

3. Minimum weight, without fuel: 10,500g

4. Truck Wheel Base: 535mm

1.3 TRUCK

1. The truck has to have a functioning mechanical brake which has to be capable of keeping the truck stationary whilst the engine is running.

2. A mechanical failsafe has to be fitted to the carburettor, which returns the throttle to a closed position in case of braking of the throttle linkage.

3. Variable ratio transmission is not allowed.

4. Only 2WD (rear-wheel drive) trucks are allowed.

5. No other function than steering and throttle/brake are allowed to operate with radio control by the driver. Any other electronic or hydraulic systems are not allowed in the truck, with the acceptance of electronic failsafe to stop truck in case of radio failure.

6. The position of the ignition cut-out switch must be marked on the body shell with a white circular decal, 30mm in diameter, outlined in red with a red E in the centre. The switch must remain in the manufacturers original position and not be modified. (No additional cut-out switches will be allowed).

7. Side intrusion bars are permitted as an upgrade.

(These can be made from carbon fibre and are the only carbon fibre parts permitted)

1.4 SERVO'S & RADIO

1. No more than three servo's are allowed a single steering, one front brake and one throttle/rear brake servo
2. 3rd channel mixing is allowed provided that the channel is used for **FRONT BRAKES ONLY**. NO other mixing is allowed.
3. Transmitter radios are open.

1.5 ALLOY PARTS

1. The only Alloy parts permitted are as follows:
 - Flat pan chassis
 - Carry Handle
 - Rear Bumper
 - Front Alloy uprights
 - Wheel square hubs (front and rear) wheel pins are permitted front and rear.
 - Shocks
 - Alloy plate for front axle
 - Alloy gear plate
 - Alloy gear carrier
 - Alloy tuned pipe (as specified in 1.20)
 - Alloy parts for front disc and rear lay shaft brake
 - Alloy support brace for A&B front uprights trestle
 - Alloy side intrusion bars.
 - Alloy diff cover

1.6 BODY (BODY – Homologation List 1:6 Scale)

1. Bodies have to be properly fixed to the chassis and must cover the outer edge of the wheels (excluding front wheel inserts) at the centre of the axle when viewed from the top.
2. It is not permitted to cut the windscreen or side and rear windows.
3. The body shells have to be painted and all windows to remain clear driver's side mesh are permitted.

All parts of the truck have to be covered by the body. Only the radio antenna, carry handle and air box is allowed to come outside. It is not allowed to modify the truck-body by cutting it over the marked trim lines or to widen it by heating it or parts of it.

4. Only allowed for manufactures: Aerodynamic modifications at the front, the sides and the rear below the wheel hub centre are free subject to the requirements for ground clearance, overall length and overall width. The modifications have to correspond to the original. The materials have to be the same as that of the body shell. The homologation number has to be engraved. A photo of the modification 1:1/1:6 have to be sent to the responsible Homologation Officer.

5. 1/6th max body dimensions are as follows:
 - Length 880mm
 - Height 440mm
 - Width 437mm

1.7 GROUND CLEARANCE

1. The measurement of the body shell height and the rear cut-out height will be made with no less than 6mm ground clearance.

1.8 WING / SPOILER

1. No wings or spoilers are permitted at anytime.

1.9 BUMPER

1. A front bumper has to be fitted to the chassis. Bumpers have to be designed in a way that they fill the front of a truck body completely and be a minimum height of 40mm. The material used has to be flexible like PU-RIM or other foams that are used in 1:1 truck construction to absorb impact energy. At no point may any part of inflexible material for body shell mounting protrude from the body more than 10mm. The driver is free to design a bumper for the rear of his truck but must have minimum 5mm of foam or rubber between bumper and body of the truck.

1.10 CLUTCH

1. The clutch must be a non modified standard two-shoe, non modified single standard spring factory fitted centrifugal with no adjustment capability.
2. The clutch must not exceed 6000rpm engagement +/- 5%

1.11 BRAKES REAR

1. Mechanical lay shaft brake's are to be single or twin fibreglass rotor combination this is the only form of rear brakes permitted.

FRONT

2. Only front cable activated brakes with pressed steel rotors are permitted

1.12 SHOCKS and SPRINGS

1. Shock absorber cylinders must not be less than 16mm and no more than 20mm in diameter.
2. Spring are open

1.13 SWAY BARS / ANTI ROLL BARS

1. Only one piece 4mm wire sway bars to be fitted front and r

1.14 FRONT UPRIGHTS

1. Front uprights can be exchanged for plastic steering arms with steel anchor points or exchanged for alloy uprights supplied by the 1/6 truck manufacture.

1.15 WHEELS and TYRES

1. Rim Diameter: 110mm
2. Rim and fitted tyre Diameter: max.: 140 mm
3. Rim and fitted tyre width - front max.: 62 mm
4. Rim and fitted tyre width - rear max.: 80 mm
5. Tyres have to be black and only semi pneumatic rubber.
6. The design of the tyre profile is slicks only.
7. Foam tyres are not allowed.
8. Plastic truck wheel inserts must be fitted to front and rear wheels.
9. The chemical treatment of tyres by adding any tyre traction moisture or other chemicals/additives is not allowed. Tyre cleaners are not allowed.
10. No tyre warmers of any type are permitted

1.16 DIFF

1. Only plastic centre with plastic or alloy housing open centre diffs are permitted (No adjustable diffs).
2. Limited slip diff type inserts are not permitted.

1.17 GEAR RATIO

1. Gear ratio 20/44 Lay shaft
2. Gear ratio 16/48 Diff
3. 20 tooth plastic gear can be upgraded to 20 tooth Steel gear. (Not Alloy).
4. Plastic gear carrier can be upgraded to an Alloy gear carrier.

1.18 BEARINGS

1. Only standard bearings are to be used high speed and ceramic bearings are not permitted.

1.19 ENGINE

1. The engine is to be a stock CY or Zenoah non-modified single cylinder, 2 stroke, maximum 23 cm³, pull start.
2. Carburettor is to remain stock with specified motors the choke is to remain fitted and be functional, isolator block is to be plastic and the stroke size with specified motors.
3. No Turbo charging, Fuel injection, Supercharging, Wankel or rotary valve/distribution engines are allowed.
4. All ignition timing must be mechanically fixed, only manual static adjustment is allowed.
5. No Battery operated ignition allowed. Only a passive ignition system using R.P.M. as the single input parameter is allowed.
6. The Cylinder block must be of a single casting. No independent liners or slipping liners are allowed.

7. The maximum number of admission/transfer ports is limited to four (4).
8. Engine must be air-cooled, the air being driven directly by the flywheel. The flywheel is not to be modified in anyway.
9. The crankshaft must be of split shaft configuration, with enclosed big end. No half crankshafts allowed.
10. An air filter must be fitted to the carburettor. The maximum venturi diameter of the carburettor is limited to 13mm/.51 in.

1.20 FUEL

1. Only fuel admitted will be petrol normally available at automobile service stations. Special fuel like avgas, race fuel etc. is strictly forbidden. The only additive allowed is oil.

1.21 EXHAUST

1. Standard Zenoah / CY steel box exhaust can be used or upgraded to an Alloy Tuned side mounted 3-unit (chamber) pipe.
2. Maximum noise level is 81dB (A) measured at 10 metres, 1 metre above the track. If a truck produces a noise level much in excess of the other trucks, it is the Race Director's decision on whether this truck is allowed to race. No open exhausts or pipes are allowed.
3. The total exhaust has to be inside the body.

1.22 NOISE REDUCTION SYSTEMS

The application of this rule is at the discretion of the organising club through the Race Director and should be applied as a last resort to meet special circumstances.

1. All trucks to be equipped with an air-box to reduce the intake noise of the carburettor and a second muffler or third chamber to reduce the noise level of the exhaust.
2. The design of that additional silencer is free, but with both Systems together, the max. Noise level must not be over 81 dB.

“Causes for Disqualification”

Don't do any of these they are considered automatic breaches of the rules and you will be disqualified from the race meet. If a second offence occurs for the remainder of the race series you will be disqualified from the series and banned from the club. Host Clubs will determine the time of suspension.

- Altering the approved gear ratio of the truck from 20/44 15/48
- Running an aftermarket clutch.
- Removing the choke from the carbie.
- Running non-stock internals in your diff.
- Running spacers or extenders between the exhaust pipe and the cylinder
- Modifying the motor. Carbie, Piston, flywheel or clutch.
- Fitting an extended carbie isolator block.
- Run Non pump fuel (e.g. no race blends)
- Deliberately breaking the rules and guidelines of truck racing.

Un-Sportsmanlike

The following actions are considered un-sportsmanlike and will be dealt with in a manner consistent with the Host Club policies.

- Deliberate destructive action on the track during a practice session or race.
- Physical abuse of another competitor, club member or member of the public.
- Excessive verbal abuse of another club member or competitor.

The club officials are empowered to disqualify, or ban the offending person from future events.

Marshals

Normal club rules apply, **if you race you marshal!** Due to the variable numbers of classes and drivers that attend a race meet you may be asked to marshal any other class.

Scrutineering

Scrutineering will be conducted on the trucks at random. If found to be in breach, no points will be awarded to that driver for that event.

- Gear ratio approved
- Stock plastic wishbones.
- Approved alloy front uprights or stock plastic
- Plastic Inner style diff being used.
- Single rotor front cable brakes being used.
- Lay shaft rear brake.
- Nil or 4 mm sway bars fitted.
- Muffler fitted
- Stock carbie with working choke fitted.
- Non-modified tyres fitted.
- Foam bumper fitted.
- Stock or approved INS box fitted.
- Random fuel sampling