

## YPMRC TECHNICAL REGULATIONS 2023

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### Section 1: Eligible Yamaha Models

- 1.1 Road-going 250 and 350 parallel twin two-strokes, model type;
- 1.1.1 LC Model is RD250LC 4L1 & RD350LC 4L0.
- 1.1.2 TZR Model is 2MA and 1KT parallel twin.
- 1.1.3 TDR Model is 3CK and 2YK.
- 1.1.4 YPVS model is RD350LC2, RD350N, RD350N2, RD350F, RD350F2, RD350R.
- 1.2 Only models of the same spec as the officially imported model.
- 1.3 Reverse cylinder or V-twin model TZRs are not acceptable.
- 1.4 Models with larger rim sizes or brake diameters than the official models are also illegal.

# Section 2: Parts that must remain standard and not be modified regardless of model

- 2.1 Frame and subframe, with the exception of minor modifications permitted in the list in sections 3.12 and 3.13.
- 2.2 Swingarm must be from the relevant model and standard, other than the compulsory fitting of a lower run chain guard. (LC exceptions: rules 5.1.3-5.1.4, TZR exception: rule 5.4.1).
- 2.3 Cush drive and sprocket carrier.
- 2.4 Primary drive gears.
- 2.5 Gearbox must be from the officially imported model of the relevant motorcycle.
- 2.6 Ignition control units must be from an officially imported model of the relevant motorcycle. Alternatively the fitment of a Zeeltronic powervalve control unit is permitted.
  - No remapping or FIII kit boxes are permitted. (LC/YPVS exemption: rule 5.1.13
- 2.7 No system may be fitted that will affect a dyno's ability to take a correct power reading.
- 2.8 No redundant electrical systems are permitted.
- 2.9 Powervalve systems, if applicable to model, must be from the relevant motorcycle and must be fitted and fully operational.

### Section 3: Parts allowed to be modified regardless of model

### **Fuelling:**

3.1 Internal petrol tank filters and taps may be modified or removed but otherwise fuel tanks must remain as standard for the model. In cases of excess corrosion to fuel tanks they may be modified to incorporate an internal tank. This tank must be securely mounted and isolated from the frame on rubber mounts. The original tank must form the cover to maintain original appearance. Internal tank filler cap must conform to ACU specification in respect of sealing and venting. Fuel cap and outlets must be in original position as per standard tank.

Original tank mounting cross bracket may be modified or removed to accommodate repair of original or fitment of internal tank.

Original tank/cover must be securely mounted.

3.2 Fuel tank cap can be modified or replaced, subject to ACU regulations.

#### **Electrical:**

- 3.3 Static ignition timing may be altered.
- 3.4 Electrical components may be repositioned, and waterproofing measures taken.
- 3.5 Rotor lightening is allowed.

### **Engine:**

- 3.6 Barrels and head can be modified.
- 3.7 Crankcases must be from permitted model or model using same casting. E.G. TZR/TDR, 1KT, 2MA, 3CK or 2YK. TZR250 2XT crankcases are not permitted. Top crankcase may be flowed and blended to match transfer port entry and boost port entry. The use of filler material is permitted but restricted to the transfer port passage in the top crankcase only. The use of fillers and packing in any other areas is not permitted. Reed valve entry and mounting must remain original and not be modified. The only permitted crank modification is the use of a full-circle crank.
- 3.8 Sprocket cover may be modified or removed.
- 3.9 Airbox may be modified or removed.
- 3.10 Radiators, cooling system and thermostat may be substituted or modified.
- 3.11 Rebores to a maximum of 2.75mm (no big bores).
- 3.12 Aftermarket billet clutch and non-OE pressure plate, extra plates and replacement springs are permitted.
- 3.13 Exhausts can be modified or replaced with alternatives. Any exhaust must conform to the ACU noise limit of 105db.
- 3.14 Powervalve control boxes may be modified with the use of 'Dip Switches' or re-soldering of the internal motherboard. The Powervalve control box must be Yamaha OE and applicable to the relevant model. Alternatively the fitment of a Zeeltronic powervalve control unit is permitted.

#### **Chassis:**

- 3.15 Minor frame and subframe mods are allowed for cosmetic reasons, bodywork fitment and steering damper mods, but not to change geometry, lightening or bracing. The final rear cross brace must remain in standard position on all models, cutting the rear subframe to this point is permissible to facilitate the fitment of non-standard seats.
- 3.16 Ancillary frame brackets can be removed, typically unused mounting lugs, additional lugs may be added to assist the fitment of bodywork.
- 3.17 Chassis and wheel bearings may be upgraded to superior specification, but must be to standard diameter.
- Fork internals, sliders and caps may be modified or replaced with cartridge kits of higher specification. Forks may be shortened.
- 3.19 Rear shock may be re-gassed, spring may be replaced to suit riders' requirements.

  Alternatively, any commercially available shock absorber may be used. This must be of single unit construction. No remote reservoirs, piggy back reservoirs or remote pre load units will

	be allowed. The unit must also be a direct fit to the existing mounts without modification to the frame or linkage. LC can use any shock as long as it is a direct fitment.
3.20	Rear suspension tie-bars may be modified or replaced to modify the ride height.
3.21	A steering damper is allowed.
3.22	Handlebars can be modified, replaced and remounted with due consideration paid to clearance of fairings and bodywork.
3.23	Race bodywork can be fitted, but must not alter original silhouette at front of bike. Seat unit may be replaced with any suitable unit.
3.24	Mudguards.
3.25	Double bubble and tinted screens are allowed.
3.26	Wheel spindles, subject to use of original material and thickness. They must be at least standard length and may be lengthened to allow use of R-hook.
3.27	Rear brake fluid reservoir. The 'HRC' tube modification is allowed.
3.28	Any master cylinder, including race specific units, may be used for front and rear braking

### Section 4: Parts allowed to be removed regardless of model

- 4.1 Equipment for road use like mirrors, horn, indicators, pillion pegs and ancillary brackets originally to support road-going parts.
- 4.2 Top chainguard (a bottom run 'sharks fin' toe guard must be added as per ACU regulations).
- 4.3 Mudguards.
- 4.4 Speedo, cable and speedo drive. The speedo drive can be substituted for a suitable spacer.
- 4.5 Charging system, including regulator-rectifier and battery.
- 4.6 Oil tank and pump.

systems.

- 4.7 Airbox.
- 4.8 Kickstart mechanism.
- 4.9 Gearbox sprocket cover.
- 4.10 Thermostat.
- 4.11 Rear brake fluid reservoir.

### Section 5: Model-specific regulations

### Section 5.1: RD250/350 LC non-power valve 4L0 and 4L1

- 5.1.1 250LC is allowed twin discs and callipers from the 350LC.
- 5.1.2 YPVS forks, wheels and brakes can be fitted.
- 5.1.3 Swingarm bracing and period aftermarket swingarms are allowed.

- 5.1.4 Any class-legal YPVS bodywork/frame/swingarm part can be fitted, (with the exception of full fairings).
- 5.1.5 TZR forks, wheels and brake may be fitted, along with the rear wheel, the 'Blue Spot' front calliper may be used ONLY if the bike is fitted with TZR forks. See TZR rules for full definition of this calliper.
- 5.1.6 Any shock can be used as long as it is direct fitment with no frame or linkage modification.
- 5.1.7 The 'Pro-Am' Fairing and belly pan are permitted.
- 5.1.8 Non-standard or modified carburettors are allowed.
- 5.1.9 YPVS conrods or crankshaft can be used.
- 5.1.10 Any ignition is allowed.

### Section 5.2: RD350YPVS LC2, F1/N1, F2/N2, RD350R - 31K, 1UA

- 5.2.1 Any OEM Yamaha twin opposing piston calliper, with an 83mm bolt pitch, that will fit without additional mounting brackets is allowed.
- Allowance of four piston brake callipers with 83mm bolt spacing from the following models, to fit 350YPVS 31K or F2 forks, without any adapter plates.
   Callipers must be from the following eligible models only. Master cylinder must remain 5/8" i.e. 16mm: FZR400 3TJ, TZR250 3MA, TZR250 3XV, R1-Z 250, Triumph TT600 and 595 series.
- 5.2.3 Ignition systems can be a combination of eligible models or an aftermarket non programmable YPVS replacement. F11 Kit Ignitions are prohibited.
- 5.2.4 Non-standard or modified carburettors are allowed.
- 5.2.5 TZR forks, wheels and brake may be fitted, along with the rear wheel, as long as the braking system conforms to TZR regulations. The YPVS rear swing arm must remain. The 'Blue spot' calliper may be used ONLY if the bike is fitted with TZR forks. See TZR rules for full definition of this calliper.

#### Section 5.3: RD350LC/YPVS Hybrid

Rules as RD250/350LC (section 4.2) with the following exception:

5.3.1 Ignition must be as per YPVS rules and the Powervalve system must be operational.

#### Section 5.4: TZR250 1KT, 2MA

- 5.4.1 Model 2XW-1 swinging arm, shock and linkages are permitted as these were officially fitted to later model 2MAs imported to the UK.
- 5.4.2 Rear wheel can be replaced with a suitable 3.5in Yamaha wheel that will accept the standard spindle, cush drive and sprocket carrier.
- 5.4.3 We allow use of any OEM Yamaha MONOBLOC construction front calliper with 100mm bolt pitch that attaches directly to the fork leg without the need for an adaptor plate.
- 5.4.4 Carburettor bodies must remain standard. F3 carburettor mod is not permitted.

  Jets and needles may be changed. Carburettor mount rubbers may be replaced with aftermarket items or similar. Reed petals may be changed, standard reed spacer blocks must remain but may be modified, standard reed cages may be modified or replaced with alternative items but must use original mount bolt spacing.
- 5.4.5 TZR/TDR wheel change eligibility:

Below is a list of wheels that make up eligible options for front wheel variant for all models using the TZR250 forks. This list may change in the future as we find additional wheels that are suitable. Note the conditions are:

- The original specification 12mm 1KT/2MA wheel spindle must be used.
- No adjustments to the forks or caliper can be undertaken to allow fitment.
- Standard wheel must be able to fit straight back into to setup using standard 2MA/1KT 12mm spacers, spindle and eligible caliper setup.
- The wheel must be off a Production Yamaha motorcycle.
- NOTE: All non standard front wheels will require spindle size adjustment spacers, different wheel spacers and in some cases machining of the disc face. The machining specs listed below are only guidelines, wheels may need more or less machining of the disc face depending on origin. The only direct fit wheel is the OE 2.15 stock front.

Model	ID Number	Size
TZR125R*	Brembo	2.75 x 17
TZR250 (2XT)	F-44	2.75 x 17
R1-Z 250 (3XC)	F-44	2.75 x 17
FZR250 (3LN)	F-44	2.75 x 17
FZX250	F-44	2.75 x 17
TZR125RR**	F-49	3.00 x 17
TZR250 (3MA & 3XV) **	F-49	3.00 x 17
FZR600 (3HE)		3.00 x 17
SZR660 **	Y-2 F-49	3.00 x 17
FZR400**	F-36	3.00 x 17

<sup>\*</sup> The Brembo TZR125RR front wheel is possible to fit with the 'Blue Spot' Calliper but the wheel will be off set. The wheel will fit centrally with the standard caliper.

### Section 5.5: TDR250 3CK, 2YK

Rules as TZR250 (section 4.4) with the following exceptions

- 5.5.1 Footrest position may be altered by modifying or removing frame lugs, allowing fitment of aftermarket rear sets.
- 5.5.2 CDI and PV boxes from eligible TZR models are allowed.

### **Section 6: Fuel**

6.1 Pump fuel only. Max 99RON, premixed with two-stroke oil if necessary. No octane boosters or other additives allowed.

### **Section 7: Tyres**

7.1 Tyres: Any moulded treaded tyre. Wets are allowed. No slicks.

#### **Section 8: Technical inspection**

8.1 Random technical inspections may be carried out by YPMRC technical co-ordinators.

Any potential rule infringements will be referred to the BMCRC Chief Technical Official for appropriate action under BMCRC/ACU regulations.

<sup>\*\*</sup> A modification to remove 4mm from the wheel is required

### **Section 9: Updates/queries**

- 9.1 Any changes made to the regulations will be decided under the control of the club coordinators and in some cases BMCRC Tech officials.
- 9.2 For any information concerning updates to or questions about the regulations, contact: Len Whalin lenwhalin@hotmail.com
- 9.3 YPMRC Ethos:

Members should not seek to look for any holes or vagaries in the regulations and attempt a modification, or to gain an advantage, that would not be in the right spirit of the club and fair competition. If in doubt, ask before carrying out a modification.