

# Set-up Yamaha

Make your bike handle and stop better today by getting the most out of its standard

## SPECIFICATIONS

### Standard settings

→ REAR SHOCK	
Preload	3rd notch out of 7
Rebound	10 clicks out from full
Compression	2 turns out from full in
→ FRONT FORKS	
Preload	5 lines showing
Rebound	1½ turns out from full in
Compression	1½ turns out from full in

### PB track settings

→ REAR SHOCK	
Preload	4th notch out of 7
Rebound	3 clicks out from full
Compression	1½ out from full in
→ FRONT FORKS	
Preload	1 line showing
Rebound	¼ of a turn out from full in
Compression	1 turn out from full in
Tyre pressures	front 32psi; rear 30psi
Fork protrusion	3mm (excluding fork cap)

### PB road settings

same as for track except:

→ REAR SHOCK	
Preload	3rd notch out of 7
Rebound	5 clicks out from full
→ FRONT FORKS	
Preload	3 lines showing
Fork protrusion	standard
Tyre pressures	front 34psi; rear 38psi

Once again, we take to the road and track (at Mallory) to set up the Yamaha Thundercat. First job is to set the tyre pressures for the circuit: 32psi (front), 30psi (rear).

Because we're graced with damp weather today, the first few laps are taken at a steady pace, which shows how good the standard set-up is for wet weather riding. The front end works well because it is fairly soft and the damping is subtle, which gives loads of feedback through the handlebars. Just what you want when it's wet or damp. The rear shock also works well in the wet, and, allied with the Thundercat's linear power delivery, it gives good traction.

All this is well and good... until the circuit starts to dry out. The bike then starts to feel a bit loose, the front forks diving too much on the brakes, and springing up too quickly when the brake is released. This prevents the bike from being turned in quickly and makes holding a tight line difficult. The rear end is okay, apart from a wallowing action when the throttle is wound on; it's like a see-saw action. Exiting the Devil's Elbow it feels severe.

Time to do some adjusting. The first thing to change is the fork preload, which is adjusted using a 14mm open-ended spanner. As it had felt soft we turn it up

(clockwise) so there is only one line showing. The compression damping (adjusted under the front brake caliper on the bottom of the fork leg) is also increased using a flatbladed screwdriver and is turned clockwise one turn.

The rebound damping also needs increasing. The adjuster is located on the top of the forks and is again turned clockwise using a flatbladed screwdriver; we turned it in one-and-a-quarter turns.

The rear end needs some tweaks; the biggest problem seems to be insufficient rebound damping. The rebound adjuster is located at the bottom of the shock, and is most easily accessed from the left-side of the bike. There is a knobby dial at the bottom of the shock, which needs to be turned anti-clockwise to increase the damping. We turn it seven clicks. The spring is turned up one notch with a C-spanner, to the fourth notch out of seven.

Assessing the state of play so far by pushing down on the back end of the bike, we decide to give it more compression damping. The adjuster for this is located at the back of the left sidepanel - a slot gives access for a flatbladed screwdriver and we turn it up by a quarter of a turn.

We also decide to adjust the tickover, increasing it to around 1800rpm. The tickover adjuster is under the right-hand main frame spar, about half way along. Turning

clockwise increases the rpm and anti-clockwise decreases it. This will help prevent the back wheel chattering and be less prone to fishtailing, particularly when approaching the brakes full on.

The extra preload on the front really firms up the forks, and, back on the track, it feels much better into turns. The increase in rebound on the rear shock has eliminated the see-saw effect.

Next, we try dropping the fork tubes through the yokes in varying amounts, and find

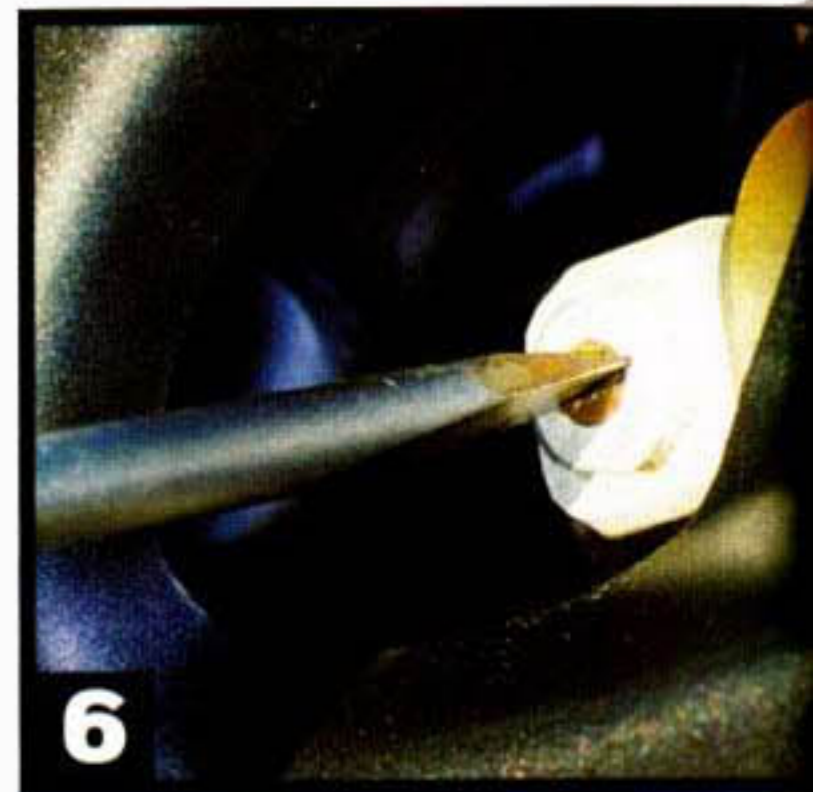


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### Front preload

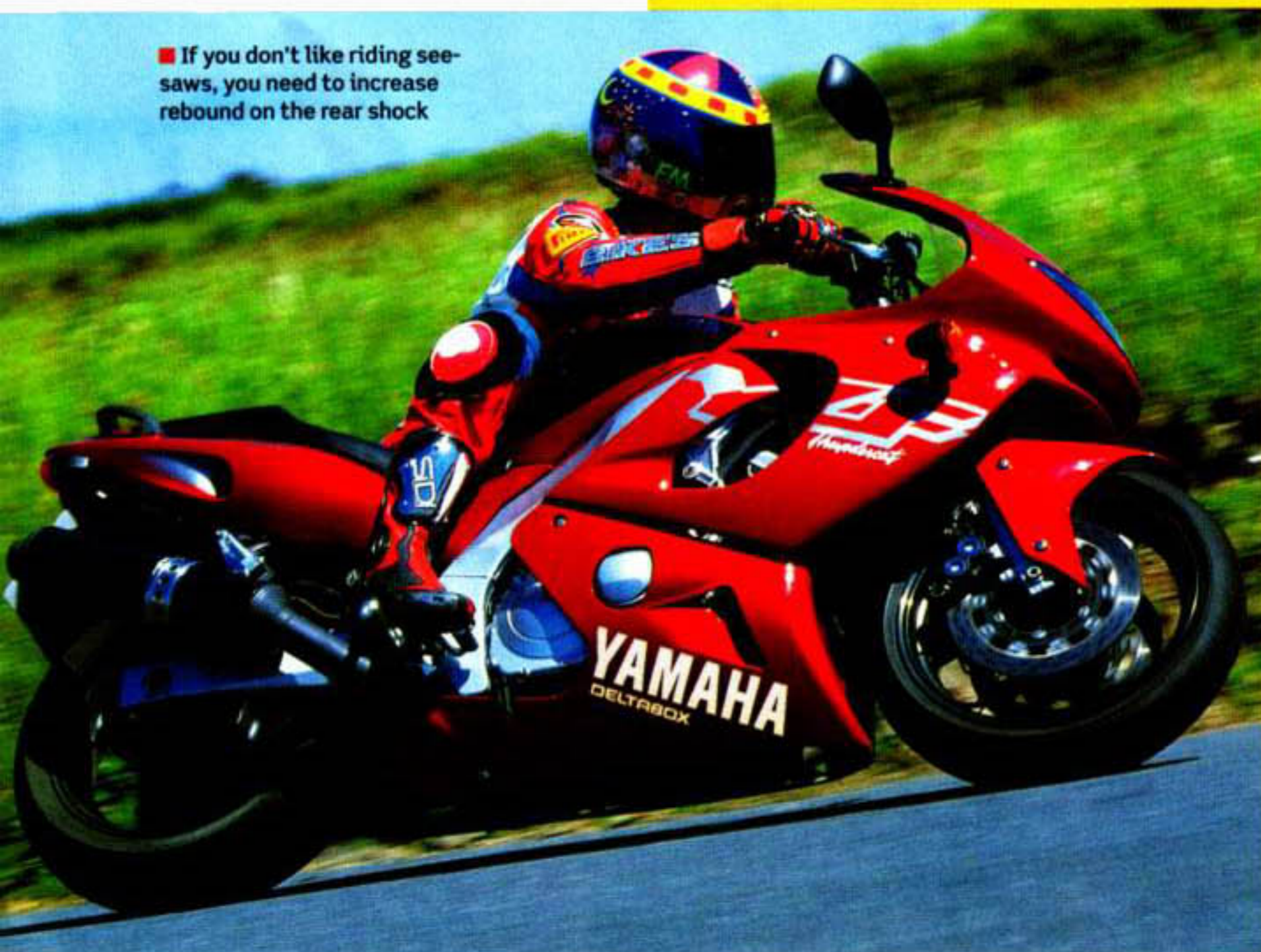
→ TRACK: too much dive on the brakes and a general vagueness at the front suggested a tad more preload might be in order. So it was out with the 14mm open-ended spanner and a few clockwise turns until there was just one line showing on the anodised adjuster. This gave a much firmer feel to the forks and the bike was far more assured into turns

→ ROAD: less preload is needed for the road. We went for three lines



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■ If you don't like riding see-saws, you need to increase rebound on the rear shock



that 3mm protruding through is the best compromise. This is straightforward to do. First slacken the 14mm bolt on the bottom yoke and the two 5mm Allen bolts that secure the handlebar to the fork tube. Next, slacken the 6mm bolt on the top yoke just enough to enable you to ease the fork tube through the handlebar. When the tube protrudes by the desired amount, tighten all the bolts back up and repeat the process on the other fork leg.

We head off along the A16 and A1073 to Spalding to try the track settings on the road. Straightaway, the front feels a bit on the hard side and the bars feel a bit wild. So we reduce the fork preload so there are three lines showing, and set the fork tube protrusion back to the standard setting. After trying it out on the

# Thundercat



suspension and chassis. No flash new hardware required...



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## Front rebound

➤ **TRACK:** as standard, the Thundercat's rebound is set at one-and-a-half turns out from full in. We had to take this right down to a quarter of a turn. This underlines the lack of rebound damping the Yam has as standard, a problem confirmed by suspension specialists, Maxton

➤ **ROAD:** as it turned out, we'd hit the mark on the track for rebound setting on the road



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## Front comp

➤ **TRACK:** lack of front preload was causing dive on the brakes and a vague feel going into turns. Too little compression damping was only adding to the problem. We didn't need to wring out as much as we did with the rebound, so a half turn more (clockwise) was enough to make the right amount of difference

➤ **ROAD:** comp adjustment was another track-bred success

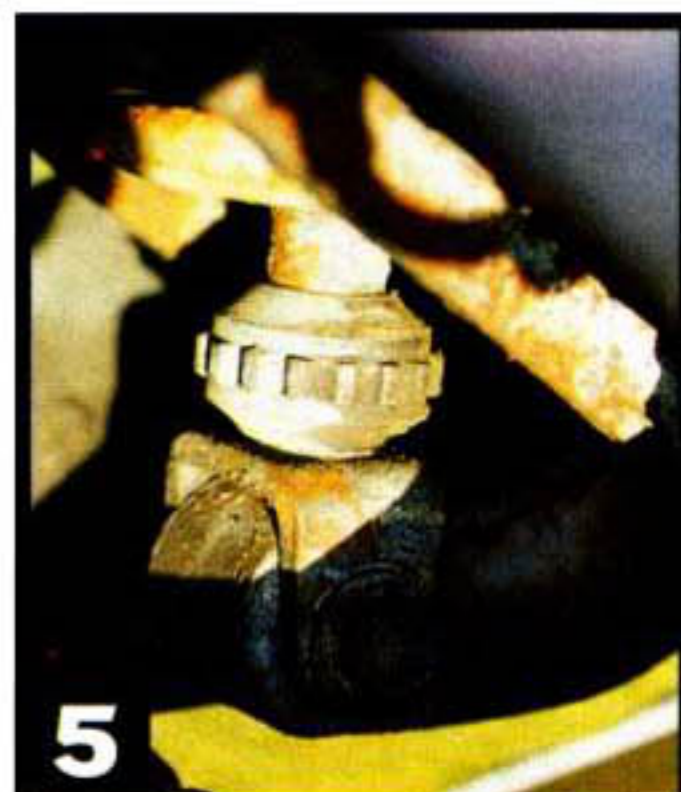


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## Rear preload

➤ **TRACK:** the rear end turned up the need for a few tweaks, although preload wasn't the biggest problem. Just one more click of preload was called for to make the Thundercat's already compliant front end a shade more, well, compliant. Out with the C-spanner and mind those knuckles

➤ **ROAD:** Yamaha clearly knew what they were doing here, and the stock setting is fine for the road



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## Rear rebound

➤ **TRACK:** this grubby little rascal takes care of rebound at the back, and, as you can see, gets all kinds of shit thrown at it - before we even interfere with it. We needed a mighty seven clicks more in an anti-clockwise direction from the standard ten to make things right for the track

➤ **ROAD:** to match the standard preload setting we favoured for the road, we backed rebound off to five



## Rear comp

➤ **TRACK:** as with the front, compression damping at the back wasn't a million miles out. A helpful cutaway in the tail unit allows access to the adjuster, which we attacked with a flatbladed screwdriver, turning it in a half turn to increase damping

➤ **ROAD:** as it was on the track, so shall it be on the road...



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## Rear ending

➤ **ROAD AND TRACK:** there's nothing like a good pump of the back end to figure out what's what. Our Thundercat was clearly going to need a little bit more preload and a load more rebound even before we took to the track. On a damp circuit, the standard settings gave little cause for complaint, but as the tarmac dried the need for change became more evident. On the road, standard preload was fine with more damping



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## Tyre pressures

➤ **TRACK:** higher temperatures attained by tyres on the track mean that pressures can be lower - even on a winter's day at Mallory Park. That's because air expands plenty when it's hot. We went for 32psi front and 30psi rear in our Michelin Pilot Sports. A good choice for the Thundercat

➤ **ROAD:** road riding being a less frantic affair, pressures need to be higher. Go for 34psi front and 38psi rear. That'll do you



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## Front ride height

➤ **TRACK:** to give the Thundercat a little help to hold tighter lines quicker on the track, we dropped the yokes 3mm down the fork legs (as measured not including the fork cap). A modest drop, but enough to have the desired effect

➤ **ROAD:** in combination with the other tweaks we'd made to the suspension, our lowered front end made the Thundercat a little nervous on the road. We reverted to standard to calm things down

## MAXTON SAY...

"The forks feel notchy and harsh and kick off small bumps because they have too much compression damping over small movements. Because the springs are too soft, when you brake hard you can feel the forks bottom out.

"What we do is increase the rebound damping, fitting harder springs to suit the rider's weight and type of riding. We also modify the cartridges of the forks, increasing the range of adjustment in the damping. Many people complain about the lack of feedback or feel from the front end, and this conversion (which costs £299.63 including vat, bushes and seals) cures the problem and stops the front feeling vague.

"The spring on the standard rear shock is a bit on the stiff side for the average rider's weight; if the bike is going to be used for trackdays or racing, a replacement shock is best. Our shock has an adjustable ride height built into it and should only be used with the new tie bars, which we also supply.

"Changing the shock length and tie bars gives a more constant shock ratio. The cost of our shock is £475.88 without remote and £558.13 with remote. Tie bars are £35.25."

Maxton (01928 740531).

same piece of road it feels much better. Where before it gave a choppy ride (with a bit of flightiness thrown in for good measure), it is now almost completely stable as the forks are absorbing the bumps as opposed to hammering off them.

We end up with a slightly softer set-up on the rear, turning the preload back to the standard setting (third notch), and reducing the rebound damping by a couple of clicks. If you were to take a pillion you would need to increase the rear preload by at least two more notches and turn up both the compression and rebound damping.

Thanks

Flitwick M/Cs: (01525 712197)