

JA Guide to Beta Forks

Beta Evo -Adjusting the fork oil levels after renewing seals.

Assuming forks have been dismantled, drained, cleaned and new fork and dust seals fitted.

Left hand, spring leg.

With fork spring still out, secure the leg in the vertical position and fully compress the slider.

Now pour in fork oil (SAE5) and keep checking the level from the top face. Occasionally pull the slider up and down to eliminate any air pockets around the seal area.

The level varies depending on the year and the information can be found in the rider's Handbook now normally a CD. For the spring leg the level is around 120-125mm from the top of the slider.

To make things easier, bikes from around 2017 just have a designated quantity of oil to around 297cc be added, no measuring is required.

Once this is correct, pull the slider fully up, fit the spring and spring spacers, then the cap nut this will fully extend the fork leg and have atmospheric pressure in the fork. You can see from this that the trapped air increases in pressure and assists the spring when depressed.

Right Side, damping leg.

Secure the fork leg vertically. Damping cap is off and damping rod is free to be moved up and down. When you remove the damping cap take care that the little valve fitted in the top of the damping rod stays in position –lose that and there's no damping adjustment.

With slider fully depressed, pour oil and frequent stroke the damping rod to get oil down into the bottom of the damping mechanism and eliminate air. *You can raise and lower the slider, but not to it's full travel as it can come out of the seals because the damping rod is not limiting the slider travel.*

With the slider fully depressed and the damping rod down as far as you can reach, adjust the oil level. This is normally between 60-65 mm from the top of the slider.

To make things easier, bikes from around 2017 just have a designated quantity of oil to around 297cc be added, no measuring is required.

Then pull the damping rod up as far as it will go, screw the cap fully onto the damper rod until it stops, then tighten the 14mm lock nut.

Now raise the slider to meet the top cap and screw it into the slider with it fully extended.

This leg has longer stroke than the spring leg to avoid mechanical damage to the damping assembly when compressed or at free length, so at present it will most likely be longer than the spring leg.

JA Guide to Beta Forks

Beta Evo Forks Fitting

The spring leg dictates the maximum unloaded free length of the forks and when the oil level has been adjusted and the cap fitted, it is at atmospheric pressure. The damping leg has greater travel to avoid damage to the damping mechanism so it is possible the air pressure may not be correct when moved to the same length as the spring side when fitted to your bike.

Procedure for fitting.

With the bike raised on a stand so there will be clearance under the front wheel when fitted –no compression on the forks.

Refit the fork stanchions back in the yokes to give the correct protrusion above the top of the yokes, same as before.

Nip the bottom yoke pinch bolts only to keep the legs in position –don't nip up the top pinch bolts yet.

Right hand leg looking forward is the damping leg with screwdriver slot damping adjustment.

Left hand leg looking forward is the spring leg with Allen key spring adjustment.

Fit the front wheel and nip the spindle up, do not over-tighten as this can distort the ends of the spacer between the bearings and can make the wheel spindle extremely difficult to remove. Check that the wheel alignment is good - at right angles to the handlebars. Slacken the lower yoke pinch bolts to allow adjustment of alignment if necessary.

Now the wheel spindle is holding both legs at the same length, the spring leg will have either compressed or lengthened the damping leg, causing either positive or negative air pressure in the damping leg.

Slacken the 17mm hexagonal top cap of the damping leg several turns so that the o-ring under the face is clearly visible, then the pressure in the damping leg should also equalise to atmospheric.

Nip the top cap up; no real force is required as the o-ring seals it.

Now progressively nip up the pinch bolts on the upper and lower yokes of both legs.

With the bike on the ground, compress and release the forks several times to make sure that operation is ok especially if the forks have been lying on their sides, then the forks should align themselves on the sliding end of wheel spindle and the wheel spindle pinch bolts can be nipped up.

Depending on the rider weight, we have no turns on the hexagonal spring adjuster and say 12 to 16 clicks of damping based on SAE 5 oil(turn the slotted adjuster out until it stops and then count the clicks clockwise) or what you need.