

## KORR KTM manual Cam Chain Tensioner Instructions

Fits: 2006 - 2012 KTM 250 EXC-F, SXF, XCF  
2007 - 2012 450, 505 SMR, SXF, XCF  
2008 - 2012 400, 450, 500, 530 EXCF

This Cam chain tensioner is a replacement for the STD Hydraulic tensioner and should only be fitted by an experienced mechanic, if in doubt go to your dealer.

Approx fitting time 45 minutes

1. Clean the bike thoroughly and remove Tank and engine rocker cover.
2. Set the motor at Top Dead Centre on power stroke and lock the crankshaft as per normal KTM procedure via Allen bolt in crankcase which locates with a slot cut in the crankshaft flywheels at TDC, if you are not sure how to do this you can buy from KTM an engine servicing CD explaining everything you need to know to fix the piston at TDC. The Motor must be at TDC and valves fully closed. Measure your valve clearances at this point, and if required set them as per model requirements.
3. **All models except 250F go to section 4**, 250F owners read on :- the tensioner is located in the front of the cylinder, if you are replacing the tensioner with motor in the chassis you will need to tilt the motor up to access it. First you will need to remove r/h radiator mount bolts so you can move water pipe out of the way, also you will need to remove all engine mountings, head stay, exhaust mounts and slacken swing arm spindle, tilt the engine upwards as far as possible. This will allow the old hydraulic tensioner to be removed and new manual one fitted, because the frame down tube is very close to the tensioner and you need to make some space.
4. **ALL MODELS:-**Using a 21mm spanner remove the old hydraulic tensioner, carefully remove the "O" ring and copper washer, you need both of these if they are in good condition, place the "O" ring on the new manual tensioner, if you forget to fit this then oil pressure intended for the old tensioner will go directly into the gearbox, you will lose oil pressure for the crankshaft !!! be careful. Next without copper washer screw tensioner into the cylinder, it is a very tight tolerance so go steady, screw it all the way until it stops (with no tension on the chain, you are checking that the tensioner body goes fully into the cylinder, it should stop about 0.5mm short of flange on tensioner), you can then verify if your copper washer is thick enough to fill the gap between the Tensioner flange and the cylinder, if not buy a new copper washer if worn and or !! **Warning** on some KTM's the hole leading into the cylinder for tensioner has not been chamfered enough, with a de-burring tool chamfer this edge, it will allow tensioner to go further into cylinder and tighten up fully against the copper washer, otherwise you can have small oil leak, the tensioner feels tight but the problem is that it has actually become thread bound and not nipped onto the copper washer.
5. Now screw in the tensioner body with the O RING and COPPER WASHER and tighten up, you are now ready to manually adjust the cam chain tension, screw in the adjuster finger tight, as you are adjusting control the tension on the chain, when you have about 2-3mm of slack between cam wheels on 250F or side movement on single cam models you can lock the 17mm nut down, while stopping the adjuster turning by either a pin through the shaft or Allen key in the end, check that everything is tight and you have small amount of slack on the chain. Re-assemble the bike, remove locking bolt from crank if used. Start the bike and check, if the chain is too slack it will clatter, if its too tight it will make a Wurring sound. Tight chain tension causes loss in power and stress on bearings, sprockets and chain etc, using a loose chain and you run the risk of it jumping and changing the valve timing, setting the chain with 2-3mm of lift is the optimum. Check the tension every 30-40 hours or when inspecting valve clearances.

Any questions please email: [info@ktmoffroadracing.co.uk](mailto:info@ktmoffroadracing.co.uk)