

**Using a Screw type Puller *Read these instructions carefully before starting.***

**All screw type pullers MUST be used with great care and MUST NOT simply be screwed in** when attempting to pull a gear or split the engine cases. You tighten the puller screw then hit the head of the screw with a heavy hammer. Tighten a quarter or half turn and hammer again. Repeat until the screw simply won't tighten further – never try to force it or something will be damaged. It is the impact from the hammer blow that “pops” the 2 items.

Removing the primary drive gear can be the most difficult of any carried out on a JAWA CZ engine and you should follow these instructions carefully or risk damage to the crankshaft and the removal tool. Consult your manual and a qualified motorcycle engineer if in doubt. Wear safety glasses as metals splinters may fly off the tool or the gear.

Remove the primary drive chain – it does not need to be split. By removing the bush in the centre of the clutch drum there is sufficient slack in the chain to remove it from the drive teeth. Reassembly is the same in reverse. Fit the chain and then insert the clutch sleeve. The primary gear sprocket is a simple taper fit on the crankshaft. There is no keyway or any splines. A taper can produce one of the strongest bonds and can prove difficult or even impossible to break. Worst case scenario you must split the sprocket using an angle grinder - making sure you do not damage the shaft. Heat on the gear might help but releasing fluid is a waste of time as it cannot run into the taper fit due to the close tolerances.

Loosen the retaining nut for the gear. Ensure the nut on the end of the crankshaft is flush with the end of the shaft. That ensures that when you try the process the shaft end is unlikely to be damaged. Take great care.

Fit the special puller on to the collar on the gear and gently wind in the centre bolt ensuring the “pull” will be directly along the line of the shaft. When finger tight use a spanner to take out all slack and then: Tighten the centre bolt by one quarter turn.

**Do not try to simply wind up the centre bolt** of the puller or you will break the puller or damage the end of the crankshaft.

Hit the head of the centre bolt with the heaviest hammer you have. The gear may simply pop off. If not turn the puller centre bolt  $\frac{1}{4}$  turn tighter and wack it very hard again. The idea is that **the impact jars the gear free** of the taper. The process is to keep tightening the puller centre bolt by  $\frac{1}{4}$  turn between each wack. You will know when you are getting to the limit as the centre bolt will become increasingly hard to turn the extra  $\frac{1}{4}$ .

If you get to 1 and  $\frac{1}{2}$  turns and the gear remains in place consider heating the sprocket with a blowlamp or gas welding torch and wacking it again. There is no exact science – one member once said you need a thumpometer! Just bash the head of the puller bolt as hard as you can.

If splitting the crankcases and finding there is no movement you have almost certainly missed one of the holding screws

**JAWA CZ Owners Club accepts no liability arising from providing this advice.  
*If you do not accept this do not use these tools.***