Tuning a Chainsaw

Tuning a chainsaw is a skill that, once understood, is relatively easy to do. Indeed some modern saws now are available with an AutoTune feature. But if you are keeping it old school for now, here's a step by step guide based on one I picked up from college a while back:

Before Starting the Process check;

- You have the right screw driver.
- There is plenty of the correct fuel in the tank.
- The saw and particularly the air/fuel filters are clean.
- The chain is tensioned correctly, not distorted, lubricated and it is sharp.
- The bar is free from pinch points and the chain freely runs over its nose.
- The work area is safe, clear of obstacles beneath the bar and appropriate PPE is worn.

Tuning the Chainsaw

- Set the L&H mixture screws to manufacturers settings. (Found in the manual and sometimes by the L&H screws on the carb)
- Start and warm up the saw.
- Adjust idle speed to approx 2000rpm using screw marked LA or T (Twice as fast as average cars idle speed).
  NB The chain should be stationary at this speed. If not then tension is too slack or clutch is engaging too early.

Adjust The Low Mixture

- Turn the Low mixture screw slowly clockwise with the engine running (engine should first increase then decrease rpm).
- Then turn the Low mixture screw anti clockwise (engine should first increase then decrease rpm)
- Then turn the Low screw back clockwise until the fastest engine speed is achieved.
- Then turn the Low screw anti clockwise a further 10mins (on an imaginary clock face)
Test the acceleration

- This should be fast and without hesitation.
- If the engine does hesitate, turn the Low screw anti clockwise a little and retest. NB (Anti clockwise = more fuel).
- Re-adjust the idle speed if necessary back to 2000rpm.

Take a sip of coffee.

Adjust the High Mixture

- With the throttle at maximum, turn the high mixture screw clockwise until the engine achieves maximum rpm
  NB Do this in short throttle bursts, avoids engine seizure if engine held at maximum for too long ...so blip it to maximum like a motorcyclist at some traffic lights, what's that about??!!
- Turn the High mixture screw anti clockwise until the engine note deepens slightly and starts to sound muffled.

Test the Saw in Wood

- In normal cutting conditions, the engine should sound crisp when cutting and slightly muffled when at full throttle with no load.

Check Spark Plug

- Electrodes should be a biscuit brown colour and produce a strong spark when plugged in and end earthed against its housing. Replace if necessary.

Now go and cut something and marvel at your tuning skills!

About the Author:

Better known as timberwolf190 on Instagram, Marcus endeavours to share interesting jobs, kit, ideas and concepts to Arborists worldwide. He has been working in the arboricultural industry since 1995, initially learning the ropes using the older arb techniques. Marcus has experienced the huge transformation into current practice and is an enthusiastic supporter of innovation within the profession.