

HOW TO BREAK-IN A NEW TWO STROKE MOTOR



Originally Posted at Star Vespa

To begin, add the correct level of oil mixture to the gas, not extra, and use non-synthetic.

Check the oil regularly. First time you should change the oil after only a hundred miles or so because the parts are new and will wear a bit as they break in. Then you'll have clean oil. On a Lambretta, remove the magnetic plug and clean any small shavings off it and remove and blow through the breather plug on the motor top - the one with the hole in it - each time you change oil to make sure it isn't clogging up.

Check the sparkplug regularly and make certain the color is a chocolate brown, and NOT white which would indicate too little oil in the gas, or too little gas in the mixture coming from the carburetor. Adjust if needed, as that can cause the motor to seize. Black indicates the opposite. You may need to adjust the jetting for your location's temperature/humidity/altitude. (You may also need to change the jetting after break-in.)

While breaking the motor in for the first 300-500 miles, do **NOT** do the following:

Do NOT overheat it. This is the worst thing you can do.

Do NOT rev the motor full throttle or put it under high load, especially up hills, or you will seize it. (Which sounds as though you were running out of gas: the piston expands, increasingly rubbing the cylinder wall and slowing down the scooter.) Be gentle with it. High load will always be something that can seize a two-stroke motor, so be careful.

Do NOT ride with two people as this is a heavy load, especially up hills.

Do NOT coast down long hills without throttle or the motor will receive no lubrication. Open the clutch and give it gas occasionally.

Do NOT lug the motor, meaning running it so slow in a gear it is struggling to turn over. This is as bad as revving it too high. Don't be afraid to rev it, just don't wind it right out, or put it under heavy load.

Do NOT drive a long distance at a constant rpm. Avoid the freeway. Best to modulate your speed up and down.

You should drive more gently for the first part of the break-in period, but can increase your load/RPMs as you get towards the end of the period. In plain terms, don't thrash the motor the weekend after you get it, and don't wind it out under full load until fully broken-in (and even then, do so carefully).

Also, check periodically that everything is nicely tightened down (but don't over-tighten and warp anything!), as you can develop an air leak if the carburetor or cylinder head bolts loosen up. That would lean the air mixture and whiten the plug.

Again, be certain the oil level is correct, the sparkplug is the right color, and don't overload or overheat the scooter. This avoids 99% of the problems. If you break it in properly, you will be rewarded with a more powerful motor afterwards. After 300 miles or so you will notice it is already more powerful. It will also quieten down as it breaks in.