

Yeah, she's seen better days...
Oh, you mean the bike!

Next Month

- ▶ BMW's 2010 DOHC R1200GS and R1200GS Adventure
- ▶ MV Agusta's 1090RR Brutale
- ▶ 1st Impression Zero electric bikes

Motorcycle

CONSUMER NEWS

41-06

PERIODICALS MAIL

Longacre Racing Oil Filter Cutter

IMPRESSED BY THE attention to detail of airplane mechanics who would never think to return a motor to service without a thorough inspection of its oil filter, I searched for a filter cutter that would work on a motorcycle. While many sources make cutters for the big filters used on airplanes, trucks and racecars, the only one I could find that was listed for a small 65mm filter was advertised by Longacre Racing, a racecar specialist. Alas, when it arrived, it wouldn't fit—it couldn't be adjusted small enough. But a subsequent call to Longacre revealed this is a company that cares enough to look into an issue and fix it. A month or so later, this redesigned cutter arrived in the mail. Very nicely machined from aluminum, it looks strong enough to last forever. My only gripe is that the shimming of the two moveable parts hadn't been done carefully. A trip to the auto parts store for a 1/4" and a 3/16" washer and a couple of spare internal circlips fixed that.

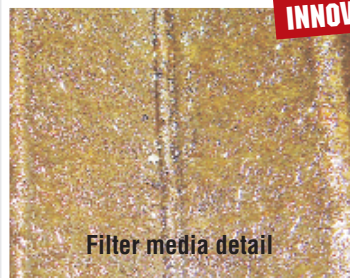
Actually cutting an oil filter is a very simple chore with the tool, something that's virtually impossible otherwise, because you can't saw into the filter's housing without introducing metal bits into the oil. The tool works just like a pipe cutter: Tighten the tool slightly, twist the can, repeat. It doesn't take a minute.

I soon learned that even a filter that's been thoroughly drained is still about half full of oil, as the rubber gasket that covers the incoming feed holes will seal the remaining oil inside. (So always cut with the tool on top of the filter, placed over some old newspaper to contain the small amount that will spill.) The particles you're looking for will be embedded in the filter paper; you won't lose them. Once it's separated, leave the pleated paper portion cocked on the upturned housing for an hour or two to drain.

The way oil is forced through the filter from the outside to the center will leave debris on the outer surface of the pleated paper and you'll need a serrated knife to cut the top and bottom sections apart (see photo of a new filter disassembled above). I suggest cleaning the knife with solvent before your wife sees it!

Stretch the pleats out on more newspaper and examine the surface carefully for particles in bright sunlight with a magnifying glass. Even on a low-mileage engine that gets great care, I was surprised to find a few large silvery particles—either aluminum, chrome or steel (a magnet will tell the difference) and

INNOVATION OF THE MONTH



Filter media detail



some big brassy looking flakes (bearing shells). Black carbon particles are also common and indicate areas of high heat inside the motor; and these can be broken between your fingernails. DIY chemical analysis can even be done with a dilute solution of sodium hydroxide (which will dissolve aluminum, distinguishing it from other metals) and nitric acid, which will cause bronze or copper bearing material to form a green liquid.

While we can't try to cover every aspect of the subject here, you can well imagine that your oil filter makes a perfect window into an engine's state of health and making a habit of analyzing your old oil filters will give you a solid basis for comparisons. Learn about your motors and detect problems like fuel dilution, dirt contamination, antifreeze in the oil, and excessive mechanical wear before they cause catastrophic failures. It's easy to do and informative, and if you are an gearhead geek like me, you need to add this cutter to your toolbox. It fits all sizes.

As far as we know, the redesigned Longacre Racing oil filter cutter is the first tool available to motorcyclists for this purpose and we helped make it happen. Part #77750; price \$54.90; range 2 3/4"-5"; mention the redesigned unit for small filters.

—Dave Searle

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