

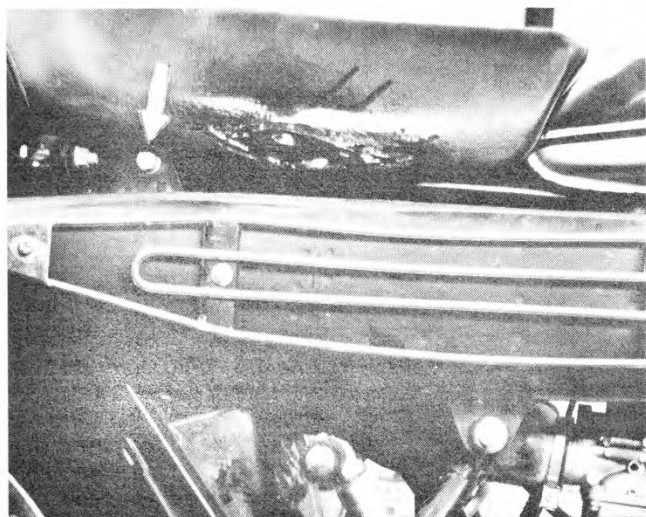
Suzuki 250 Savage Top-End Job

It's amazing what a new set of rings can do sometimes to restore a Suzuki's savagery.

by Mike Capalite

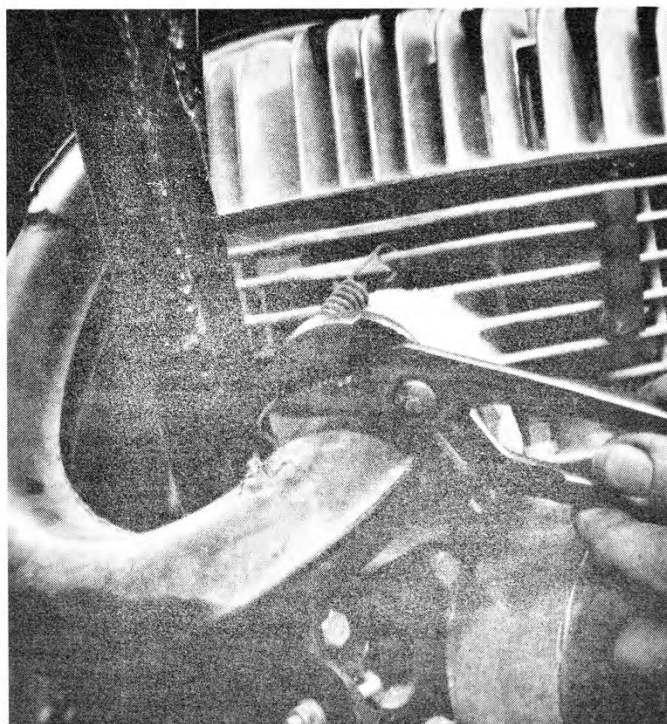
The Suzuki Savage has turned out to be just that—a savage. It was the answer for many Suzuki lovers who wanted a strong dirt bike that could be competitive. But after many hours of sliding corners and slinging rocks, any motorcycle gets tired.

If you are the owner of a Savage that just won't get as ferocious as it used to, maybe you should look it over carefully before laying out all that bread for a rebore, a new piston, and such. Maybe all the engine really needs is some freshening around the top end (assuming that you have already checked the points and the timing). If you want to give the top end a go, cleaning it up and installing new rings, here are a few hints to help you along the way. **CG**



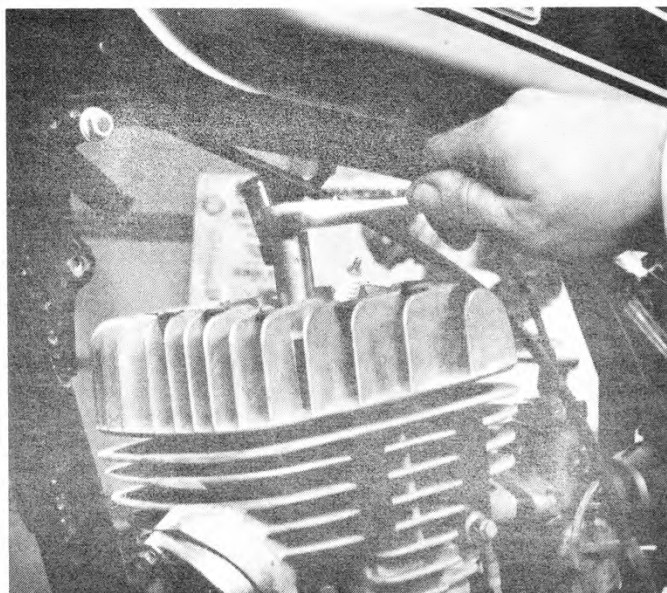
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First remove the two rear exhaust-pipe mounting bolts. There is a top bolt hiding beneath the seat (arrow) as well as the one on the bottom. Note to non-Suzuki owners: the bike does not come stock with the rip in the seat; you have to install that yourself.



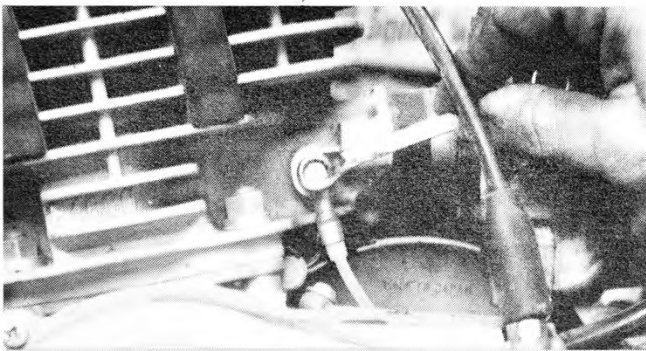
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Now remove the springs that secure the exhaust pipe to the cylinder. If you don't have a regular spring hook for this job, you can use a pair of channel-lock pliers, as shown here. With the springs off, remove the exhaust pipe from the motorcycle.



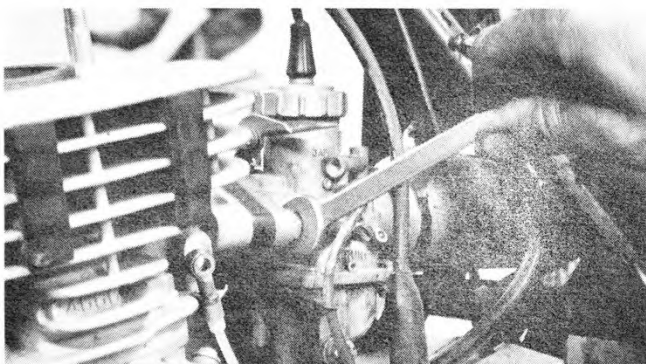
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The cylinder head is mounted to the cylinder with six nuts. Using a 14 mm socket, cross-loosen the nuts by going from each nut to the one nearest the opposite end of the head, and turning each nut just enough to break the torque on it, so as not to warp the head. Then unscrew each nut. Carefully lift away the head, to avoid dropping dirt down into the cylinder.



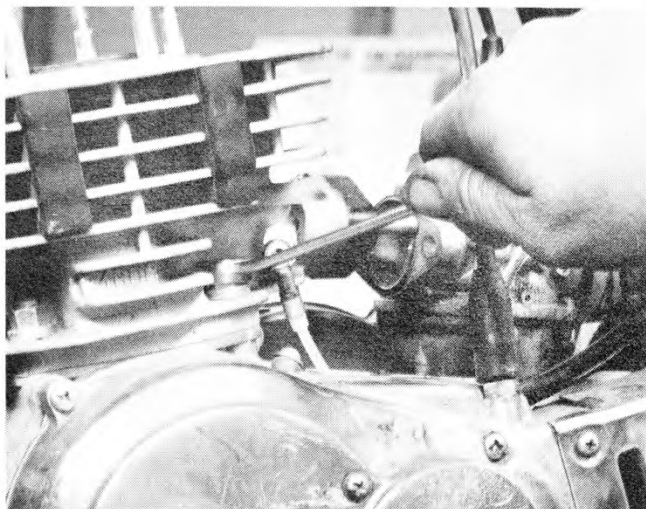
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With an 8 mm wrench, remove the oil-feed banjo-bolt from the cylinder. If you attempt to remove the cylinder without doing that, you will ruin the oil line.



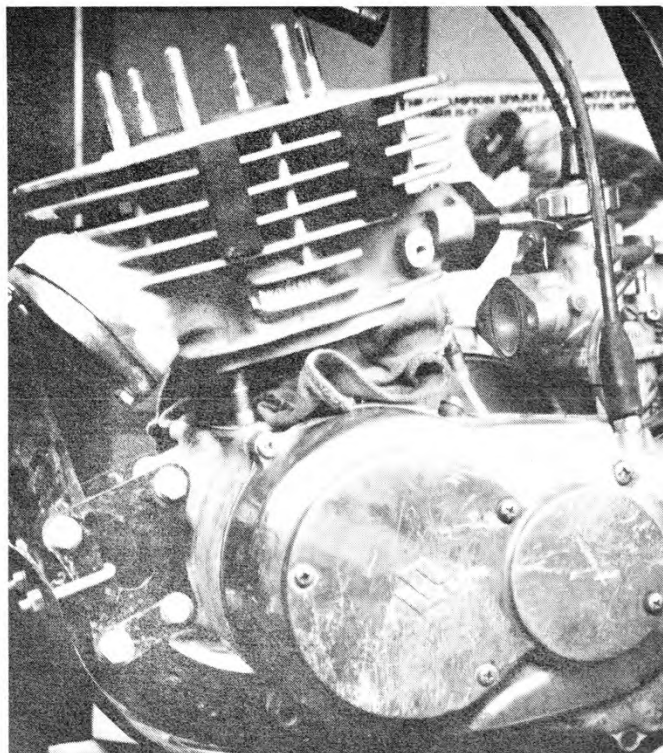
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With a 12 mm wrench, remove the two nuts that secure the carburetor to the cylinder. Force the carb far enough back into the air-cleaner hose to clear the carb-mount studs, so that you'll be able to lift the cylinder.



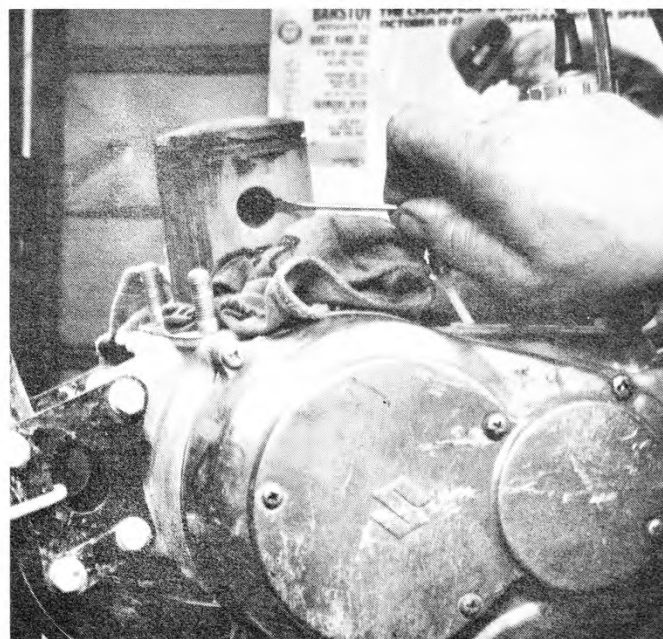
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Use a 14 mm wrench to cross-loosen the four cylinder-base nuts. Remove the nuts, and then tap the cylinder lightly with the heel of your hand to break it loose from the crankcase.



7

Lift the cylinder slightly off its base, but not high enough to free the piston. Carefully wipe away the dirt and debris from around the cylinder base at the crankcase. Then stuff a clean rag into the crankcase, as shown here, so that if anything small gets loose (such as part of a broken ring, or a piston-pin circlip), it won't be able to fall down into the crankcase.



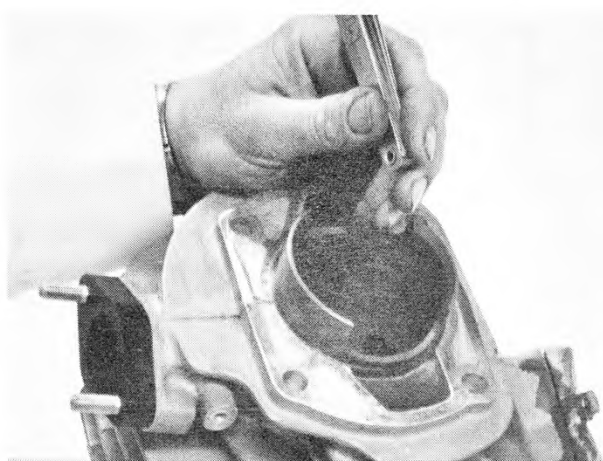
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Use a small screwdriver to pry out the piston-pin circlips. Push out the pin, and remove the piston and the top-end bearing from the rod.



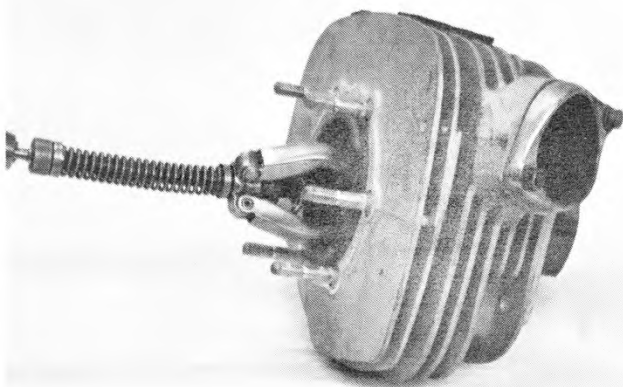
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Clean all the carbon from the top of the piston; this can be done by scraping, or easier still with a wire brush. Using a broken section of piston ring as shown here, scrape all the carbon out of the ring lands. This is very important, if you want the cylinder to fit down over the piston with the new rings in place. As the old rings wore out, the space behind them filled up with carbon; if it is not removed, the new rings will be too large in diameter to allow the cylinder to pass over them.



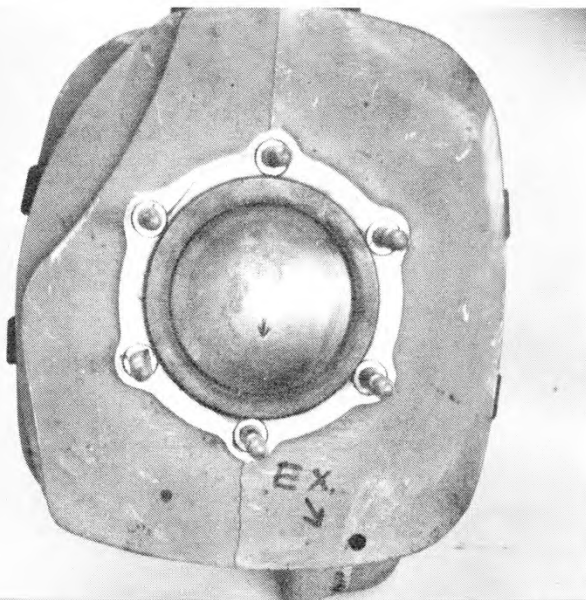
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Before installing the new rings on the piston, slip each ring into the bottom of the cylinder and check its end-gap with a feeler gauge. The accepted practice with air-cooled engines is to give .004" of ring end-gap for each inch of bore diameter. In the Savage, this works out to .011" (and the Suzuki manual says .006-.011" of end gap for new rings). If either of your new rings doesn't have enough clearance, file off one end of the ring until you get the right gap, remembering to take the same amount of metal out of the locating pin notch so as not to change its shape.



10

Feel the wall near the top of the cylinder to learn whether there is a pronounced ridge there; if so, you should have your dealer measure the piston clearance before you do anything else. If there's not much of a ridge, deglaze the cylinder with a hone, putting a good cross-hatch pattern on the walls so that the new rings will seat properly. If you do not have a glaze-breaker, your local dealer will probably do the job for you at a very reasonable charge.



12

Install the rings on the piston, lube the piston-pin bearing and the piston, and install them on the rod, making sure that the arrow on the top of the piston points to the exhaust side of the cylinder as shown here. Lube the cylinder, slip it down over the piston, and bolt everything back together. Give the engine a couple hours' easy riding to seat the rings before you turn up the wick.