



PHOTOS: JUSTIN STEINER

With its 125mm of rear-wheel travel, the Nickel fills a previously vacant slot in the Santa Cruz suspension bike hierarchy, between their 100mm and 140mm offerings. The Nickel also sports Santa Cruz's latest suspension design, dubbed the APP for "Actual Pivot Point"—a term which originally came about as a joking reference to their single-pivot bikes, back when Santa Cruz first started working on their "Virtual Pivot Point" bikes a decade ago.

The APP suspension is a single-pivot design with an additional pair of links that alter the shock rate throughout the travel. The resulting rate is falling in the beginning, flat through the middle, and rising at the end; this alteration provides plush initial travel, a non-wallowy middle, and bottom-out resistance in the end stroke. Note that "shock rate" is defined as the distance the rear shock compresses divided by the distance the rear wheel travels (i.e. the mathematical inverse of "leverage ratio"). The APP link-pair has no effect on the path that the rear wheel travels. It's still a single-pivot arc.

The single pivot point on the Nickel is placed high and forward (of the bottom bracket) similar to that of the Santa Cruz Superlight and Heckler. The placement creates a slight degree of anti-squat, which means that the design counteracts the "squat" that occurs due to acceleration. (Think of the rear end of a funny car "squatting down" as the car is accelerating.) Anti-squat gives the suspension a firm feeling when pedaling, versus a mushy feeling. Santa Cruz notes that the high-forward pivot provides a more neutral braking reaction than lower, more rearward, locations.

With a large diameter aluminum alloy down tube meeting a tapered head tube, the oversized construction on the Nickel suggests a rugged personality. The

solid construction theme continues with the 15mm diameter aluminum alloy axles used in the main swingarm pivot and APP linkages. The aluminum alloy link arms are forged, to further combat flex. Tipping the scales at 7.3lbs. for the frame and rear shock, the Nickel speaks to my "let's ride hard and play in the rocks" inner child more than it does to my weight-weenie alter ego. The dropper-post cable guides on the underside of the top tube provide additional playtime paraphernalia. The bottle opener built into the rear dropout screams "party!"

Built up with a 2010 version of Santa Cruz's X0 XC build kit (9-speed) that is no longer available, my test bike weighed in at 26.8lbs. with the provided Rock-Shox Revelation Race 130mm-travel fork (without pedals). The closest equivalent build kit that Santa Cruz currently offers is their 2011 X0 XC kit, which puts the complete-bike price tag at \$4844. The Santa Cruz website has information on all offered build options, with the most affordable complete Nickel coming in at \$2099. The frame/shock price is \$1350 with a Fox Float R, and \$1465 with a Float RP23.

With its 68° head tube angle, the Nickel falls on the slacker end of the 125mm trail bike spectrum. The geometry translated to high-speed handling that felt intuitive when carving fast turns, and confidence-inspiring when rumbling down steep grades. The 13.6" bottom bracket height (sagged to around 12.5" - 12.75") contributed to a low-slung and stable feeling, without causing me inordinate angst over the occasional clash of pedal against rock. The most notable tradeoff with the slacker head angle was a front wheel that tended to wander on the steep climbs. The good news is that the 24" long top tube on the size large Nickel provided me ample room to comfortably lean forward and weight the



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front wheel, which helped keep it on track.

Under hard cornering and in the rough stuff, the Nickel felt laterally stiff, with no detectable side-play in the suspension assembly. On paper, adding the APP linkages to the single-pivot design increases complexity and adds moving parts that could wear out or develop play over time. Santa Cruz addressed these concerns by using oversized 15mm pivot axles and stout linkages. They also used angular contact bearings that thread directly into their swingarm or link counterparts on one side of the bike and feature locking collet heads on the other. When it eventually comes time to replace the bearings, the design should make that an easy task.

I've ridden the 150mm single-pivot Santa Cruz Heckler, and the APP suspension on the Nickel proved more tune-able than its single-pivot cousin. When I ran the Heckler at lower air pressure to get a cushy feeling, it felt wallowy in the mid-stroke; I opted to nudge the pressure to the high side, which sacrificed

some coosh. Conversely, the tuned linkages on the Nickel's APP performed as advertised. I was able to set the air pressure for my desired level of coosh, with no wallow in the mid-stroke. The Nickel gave me the desired soft/firm suspension balance that I had tried to find with the Heckler, but never quite achieved.

After experimenting with the ProPedal low-speed compression damping on the Fox RP23 rear shock (with Boost Valve), I determined I preferred riding with it switched off most of the time. I like having my suspension as active and supple as possible, and pedal bob was minor under normal trail riding conditions, including climbing in the granny or middle ring. When I was racing on the Nickel, I opted for ultimate efficiency and switched on the ProPedal, and sacrificed some small-bump compliance in order to make the bike feel even firmer and more efficient under hard pedaling.

The Nickel felt like it had more travel than the 125mm number. On more than a few occasions, I looked down at the rear shock's O-ring

during a ride and noted I'd managed to push the suspension to the limit of its travel, without ever feeling a harsh bottom-out. That was much appreciated when the menu included wheelie drops, G-outs or gnar-gnar downhills. Not to mention the times I pointed the Nickel into rock gardens, punched it, and came out the other side with a smile on my mug.

Speaking of more travel, Santa Cruz also offers the Butcher, the 150mm-travel version of their APP platform. And speaking of other bikes, Santa Cruz still offers their complete line-up of single pivot (non-APP) bikes, and has even lowered the prices on them. At \$1000 for frame with shock, the Heckler is an affordable option for those looking for a simple dual-boinger.

Overall, the Nickel impressed me as a fine all-around trail bike. With its five inches of travel and variety of build kit options, I could envision the Nickel configured as an all-day sucker for epic rides, or a spry steed for going fast on the endurance race circuit.

SANTA CRUZ Nickel

TESTER:

Karl Rosengarth

AGE:

54

HEIGHT:

5'10"

WEIGHT:

150lbs.

INSEAM:

32"

VITAL STATS:

COUNTRY OF ORIGIN:

Taiwan

PRICE:

Price: \$1465 frame/fork (\$4844 with 2011 build kit)

WEIGHT:

26.8lbs. (without pedals)

SIZES AVAILABLE:

XS, S, M, L (tested), XL

CONTACT:

www.santacruzbi-cycles.com