MBA TECH

Cane Creek's Double Barrel Shock

Cane Creek teams up with Ohlins

R. Cunningham

Cane Creek has joined up with the most respected name in motorcycle racing suspension to produce a line of hydraulic mountain bike shocks. The "Double Barrel" shock is the result of a partnership with Ohlins of Sweden.

WHO IS OHLINS?

"Adjustability" is the cornerstone of Ohlins products, because the more adaptable a shock or fork is, the easier it will be for a mechanic to precisely tune a chassis to match changing weather or track conditions. To underscore Ohlins' penchant for tuning, they developed remote dials that allow a racer to fine-tune his damping and spring preload settings on-the-fly.

"DOUBLE BARREL?"

The Double Barrel shock is a remote reservoir damper—with a twist. Typically, piggyback shocks have a floating piston that separates the shock fluid from compressed gas (usually nitrogen) in the reservoir. As the shock is compressed, the shock shaft displaces fluid through a passage into the reservoir. As the shock rebounds, the piston forces it through the same passage back into the shock. Because this passage is on the compression side of the shock piston, most suspension makers use a restrictor valve in this passage to provide low-speed compression damping.

The Cane Creek Double Barrel damper has a second sleeve around the shock body that allows fluid to freely travel from either the rebound or the compression side of the damper piston to the reservoir. This "tube-around-a-tube" creates separate circuits for low-speed rebound and compression damping, and it allows Ohlins to add special blow-off valves to the low-speed damping adjusters. The blow-off devices are used to dial in the shock's mid-range bump performance externally—an adjustment that requires disassembly of an average shock to rearrange the damper piston's washer stack (various sized spring washers used to control the flow of fluid through the piston).



New on the big-hit block: Cane Creek's Double Barrel coil/over shock is aimed at the most aggressive side of the sport. Inside the damper, you'll find two secrets: a mid-stroke damping circuit and Swedish engineering.



Can you find four?: The center of each clicker is the low-speed adjustment needle; the outside dial adjusts the mid-range pop-off valves.

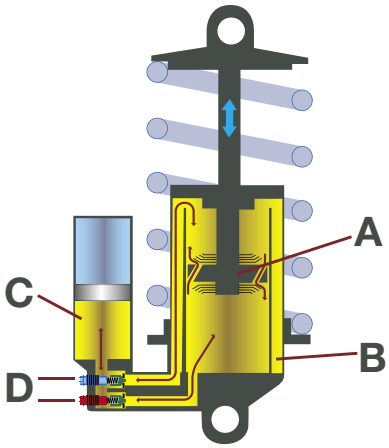
CAN I GET TITANIUM SPRINGS?

Cane Creek offers a full range of titanium springs, but they cost $230 each, so they recommend you purchase your Double Barrel shock with a $30 steel spring and experiment with settings and spring rates before you purchase a titanium version. The shock costs a whopping $850 with a titanium spring and $650 with the stock steel coil/over.

OKAY, HOW DOES IT RIDE?

The Double Barrel likes to run about one-third into its travel. This may seem like an excessive amount of suspension sag for a cross-country rider, but it keeps the rear wheel attached to the ground over rough terrain as if it were rolling over hot bubble gum.

According to instructions, we set the low-speed rebound a little stiff in order to boost the shock's pedaling platform. This, combined with the damper's natural tendency to remain steady until acted upon, resulted in a surprisingly solid feel under power—especially for a big-hit shock. The trade off for such positive pedaling action, however, was a degree of roughness over tiny chatter bumps. All we had to do to hush the harshness was to speed up the low-speed compression and rebound a half turn.



Inside the Double Barrel Shock: The damper (A) is surrounded by a second tube (B) that lets fluid flow through the piggyback reservoir circuit (C) during the rebound as well as compression stroke. When the wheel hits a sharp impact, the pop-off valves (D) unseat and allow the shock to react faster.

The big news was the Cane Creek shock's ability to work well over an exceptionally wide range of speeds and trail surfaces. Uphill or descending, the rear wheel found the smooth route without reminding us of its presence with bottoming or an occasional bounce.

We attributed this "broad band" performance to the action of the Ohlins mid-speed valves. They respond quickly, so the shock can blast through a fraction of its stroke and then, almost instantly, ease back into a steady state. The shock can smooth small, sharp impacts without blowing through all of its travel.

WAS THERE ANYTHING WE DIDN'T LIKE?

At one pound, 12 ounces (one ounce *less* than Cane Creek's claimed weight), it's hardly in the hunt for cross-country riders of any kind. A lightweight air-sprung version is in the works for a mid-season release.

WHAT DO WE THINK?

The Double Barrel's high degree of adaptability is a double-edged sword: a fool can tune it to kick like a mule, but in the hands of an above-average rider, it will definitely run like a thoroughbred. It is an expensive precision tool that can work wonders for an accomplished rider who has a handle on the type of performance he wants from his suspension. Need more information? Call Cane Creek at: (828) 684-3551. ❑