

## RockShox SID vs Manitou R7 MRD

Manitou and RockShox have long been rivals and both have new cross country forks for 2008. RockShox has revamped their longstanding SID range while Manitou has added new MRD models to their line-up. We pitched the new 100 mm travel SID against the 100 mm travel R7 MRD Absolute to see how they fared.

### General Features

#### SID

It may be called a SID but the 2008 rendition looks nothing like the SIDs of old. The only likeness comes with bright blue colour scheme which is the same hue as the original 1998 model SID. My test fork was the base model 'Race' which retails for \$1,100. The test fork was a pre-production sample and the Race will actually be silver in colour for the Australian market. RockShox will have two models above the Race; the mid-range Team will sell for \$1,300 while the top end World Cup (which will actually come in 'SID blue') will sell for \$1,900.

The complete SID makeover begins with the larger 32 mm diameter inner legs (same size as you find on the Reba) and a new forged AL66 alloy crown. One of the most interesting aspects of the 2008 SID is the abbreviated inner leg design—both the spring and the damper mechanisms take up less space and are housed higher up in the fork. This results in shorter stanchion tubes, shorter compression rods and less oil volume; all of which save weight. This also makes the lower part of the outer legs a little redundant, so it has been reshaped allowing the disc brake calliper to tuck in close to the fork for less flex and better stopping power.

The cast lower legs also hold design cues from long travel RockShox such as the Lyric and Totem models. There are pronounced bulges in the magnesium (called 'Power Bulges') that are designed to support the bushings and improve rigidity. The top end SID World Cup has carbon fibre Power Bulges to trim a couple of grams and further enhance rigidity.

The final design feature is the damping system. At a glance the Motion Control internals closely resemble that of a Reba, just abbreviated to match the shorter SID

internals. On our 'Race' level test fork the materials and damping system are almost identical to a Reba—a Delrin (read: plastic) spring tube controls the low speed compression damping which can be tuned to limit pedalling bob. The more expensive Team and World Cup models feature a new 'Black Box' version of the Motion Control system with a titanium spring tube and a more elaborate damping system. It has a shimmed high speed damping circuit for improved performance on sharp impacts and a dual speed rebound circuit that should provide better control on big hits.

Low weight has always been one of the SIDs strengths. RockShox claims 1,425g for the World Cup and 1,450g for the two other models. That places it in the same general weight territory as last years skinny 28 mm legged version. My pre-production fork was actually 1,400g with a 200 mm steerer so I don't doubt that they will reach their target weights.

#### R7

Externally the 2008 R7 MRD doesn't look all that different to the 2007 R7 models. Internally it is a very different fork. To start with it utilises the very simple 'Noble Air' spring system. A single Schrader valve adjusts both the positive and negative air springs in unison. The lack of metal springs inside helps to shave weight when compared to the air/coil system found in older R7s.

Manitou was the first 'mainstream' brand to bring pedalling platforms to their suspension fork range. By pedalling platform I am referring to a damping system that firms up the suspension to resist pedalling bob while still allowing the fork to travel if you hit a decent bump. The concept sits somewhere between a lockout and fully active suspension. SPV or 'Stable Platform Damping' has long been Manitou's key platform damping system but 2008 sees the introduction the new 'Absolute' platform damper (Abs for short).

While SPV has served them well over the years, its main fault was that an air pump was required to tune the firmness of the platform damping. A firm platform may be favourable when climbing but you are better off without it on a rough descent. With SPV there is no real trail tune-ability—not unless



you want to fiddle around with a high pressure shock pump at the start of every major descent. The Abs damper works in a similar manner to SPV but the amount of platform is controlled by a simple dial on top of the fork. Half a turn takes the damping from totally open and soft to almost completely locked out. A number of clicks between provides a gradual progression between the two extremes—clearly a step in the right direction.

The Noble Air spring and a new lighter crown has taken the claimed weight from 1,452g (2007 R7 SPV) down to 1,271g. These figures conflict with our test fork which came in at 1,330g with a 200 mm steerer. This may be 60g more than claimed but it is still one of the lightest 100 mm travel forks on the market. At \$1,060 the top of the line Manitou cross country fork is also competitively priced. Other R7 models include the Elite, which has a heavier version of the Absolute damping system (1,557g claimed) and sells for \$630. The \$1,055 R7 MRD TPC shares the feathery weight with the test fork but lacks the Abs platform damping.

### The Showdown

Weight is clearly an important issue on cross country forks and the R7 won the weight war by around 70g. Both are very light for 100 mm travel forks—the lightest offerings from Fox and Marzocchi are both over 1,500 grams.

### Stiffness

RockShox claims that the new SID is actually stiffer than their heavier Reba fork. A side by side comparison suggested that they were at least similar in rigidity. On the trail the SID definitely felt 'sharper' and more 'flickable' when compared to the Reba.

While the Manitou has skinnier 30 mm inner legs and looks decidedly malnourished next to the SID, it was surprisingly stiff. An off the bike side by side comparison with the SID showed similar stiffness. On the trail the R7 didn't feel as precise as the SID but it was not the complete whitewash that you might expect.

### Suspension Action

Both 100 mm travel forks are air sprung and oil damped with a platform system to limit unwanted bob, but each had a distinctly different suspension feel.

#### SID

Understandably, the SID Race felt a lot like a Reba. After all the damping system is almost identical. RockShox states that the SID air spring is more linear, in other words, the spring doesn't get substantially stiffer as it goes deeper into the travel. On the trail it means the fork is more willing to use its travel, which provides more control in most situations. The downside comes on big drops and jumps where it can blow through the travel a little too easily but big hits are not the core business for this fork. The SID did offer a fairly linear spring curve—it used all 100 mm of travel on most trail rides, which is exactly what you want. The 'Dual Air' system also provided a good range of adjustment if you wanted to tune in more suppleness at the start of the travel.

Many of you will already be familiar with Motion Control damping; it also appears on the Reba, Revelation, Pike and other RockShox models. Activating it increases the low speed compression damping. The amount of low speed damping is adjusted via the smaller dial that sits on top of the right leg. It varies infinitely between pretty much locked and very soft. A mid-range setting settles the fork and limits bob while still allowing the fork to move when you hit something. Deactivating the Motion Control with a quick flick of the 'Push Loc' handlebar mounted lever switches the fork to a completely open and supple mode.

Dialling in enough platform damping to eliminate all pedalling bob definitely com-

promised the comfort of the SID Race over square edged bumps. As a result, I chose to use a relatively soft platform setting. This reduced the mushy feel while still providing good suspension comfort. The more expensive 'Black Box' damping on the Team and World Cup should perform better in this respect but they were not available for this review. Overall the SID was easy to tune and offered a huge range of set-up options. The new generation SID offers enough travel and rigidity to appeal to a broad audience. Unlike the older SID, this fork inspired confidence over rough terrain and is much more than 'weight weenie' fork for the gram counters. The new SID should appeal to any weight conscious trail rider who wants 100 mm of easily tuneable suspension travel.

#### R7

The spring rate on the R7 Noble Air system was even more linear than the SID. With the Absolute damper at the soft end of the scale, the R7 felt very plush and you would use all the travel all the time. The fork would bottom out with some force if you ran the air pressure too low but that was just a set up issue. With the appropriate air pressure it would soak up mid-sized trail obstacles very well indeed. There was also a lot of dive under heavy braking and pedalling, which suggested that a little more low speed compression damping was required.

Winding the Absolute damper in a couple of clicks helped a little. With three or four clicks it felt a lot better. The brake dive was reduced and pedalling bob was minimal. Square edged bumps would trigger the suspension and the fork soaked up the impacts—even with a fairly solid platform. It produced more of an on/off feel than the SID; switching from solid to soft suspension as impacts triggered the fork.

Unfortunately the Abs damper carried one irritating quirk. The valving made a loud noise every time the platform released for a sharp edged high speed impact—on a fast rocky trail the clicking and clacking came with almost every bump. This noise was only apparent when the Abs dial was wound in to provide some platform effect. The fork was smooth and silent when the Abs dial was at the soft end of its adjustment range.

When asked about the noise Manitou responded with, "We are aware of the issue and are currently testing a slight design modification that would eliminate



the noise. The noise is the piston closing during operation in certain conditions, but in no way does this affect the performance of the system. We are aware that it has the potential to be a concern for the consumer, so we are working diligently to rectify this condition".

I found the noise disconcerting and it was enough to put me off using the Abs platform when I was off-road. As mentioned before, with no platform the R7 bobbed a lot so this was a real hindrance. If noisy suspension doesn't bother you, the Abs platform damper works well; otherwise buy some earplugs or avoid the Absolute damper system until Manitou sorts it out. If you are not into pedal platforms, the R7 MRD TPC is a viable alternative. It offers the same low weight and linear air spring with a bar mounted lock-out control—it is a simple switched on or locked out fork. I feel that platform systems offer real advantages in cross country use, so let's hope Manitou can sort out their otherwise functional Absolute damping system.

RockShox – Monza Bicycles 1800 730 337 /

www.sram.com

Manitou – Steve Cramer Products (03) 587 1466 /

www.hbsuspension.com

Article and photography by John Hardwick