Beadlock Myths and Misconceptions

There are probably more myths and misconceptions surrounding beadlock wheels than there are conspiracy theories floating around on the Internet. You'll hear "beadlock wheels aren't street legal", "they aren't DOT approved", "they are impossible to balance", "they leak" and these are just a few of the half-truths. Most have some basis in fact, but not all beadlock wheels are created equal and hence blanket statements like "beadlock wheels aren't street legal" or "you can never get them to balance" are erroneous at best. Perhaps the most common misconception regarding AEV Beadlock wheels is that because our wheels have passed the current DOT compliancy tests they are automatically street legal and/or are recommended for street use. Well, in both cases there are a lot of variables that the consumer must weigh to see if these wheels are right for his or her application.

**Does your state have a ban on Multi-Piece wheels?** Apparently, some states have laws against multi-piece wheel designs; hence all beadlock designs that I'm aware of (with the exception of the inflatable tube type) would be illegal in these states. Personally, I have never been able to find any specific anti-beadlock law, nor any list of states that have these laws. They may exist, buried somewhere deep in your state legislature, and so as a consumer your first step should be to find out if your state has such a law.

**AEV Beadlock Wheels are DOT compliant. Doesn't that mean they are street legal?** Not necessarily. AEV wheels are designed to all applicable DOT Standards regarding wheel construction and have passed the SAE Tests for Radial Fatigue, Impact, and Cornering Fatigue. Currently, DOT or SAE has no specific regulation or test requirements for beadlock wheels.

**Other companies make beadlock wheels and don't claim they are DOT compliant. What makes AEV wheels different?** Most companies start with a standard steel or aluminum wheel and literally cut off the outer bead and weld on a new beadlock adapter. After this major structural modification, the wheel must be completely re-tested per DOT guidelines in order to claim it is DOT compliant. Most companies don't bother with this, and simply don't make the claim. An AEV Wheel is cast as a beadlock so the testing applies like it would any non-beadlock wheel.

**Should I run AEV Beadlocks on the street?** Well, assuming your state has no specific ban on multi-piece wheels, you could. But just because you can, is it a good idea? That depends on you. Beadlock wheels are a specialty piece of equipment and as such take specialty maintenance and awareness to be used safely. If you want them because they look cool, beadlocks are certainly not for you. Proper
maintenance of these wheels is critical and requires the consumer to do the initial install correctly, re-
torque the wheels at least once a month, and replace all the bolts every year at minimum. It's a good
idea to develop a routine of looking over the wheels at every fuel stop, just as you would check your
engine oil.

I have decided to run the AEV Beadlocks but I've heard Beadlocks can't be balanced? There are two
sides to this misconception. The first goes back to the old cut and weld method of creating a beadlock
wheel. Anytime a wheel is cut and welded, balance can be a major issue and often times it is the wheel
causing the issue. AEV Beadlocks are cast as a beadlock and do not experience this issue. Proper balance
can also be compromised by improper mounting of the tires to the wheels. It is quite common for a tire
to be mounted in such a way that the tire is not set on the wheel properly, and this can wreak havoc
with balance. It's very important to mount the beadlock according to the instructions and drive the
vehicle before balancing the tires. We recommend at least 50-100 miles seating the tire, balancing the
wheels and re-torquing the bolts as necessary. In our experience, on average, the wheels require the
same amount of weight that a non-beadlock wheel requires.

I want to run these wheels all year; do the beadlocks have the same corrosion protection as a normal
wheel? The wheels themselves have the same corrosion protection as any AEV non-beadlock wheel. The
outer beadlock ring however is a forged aluminum ring with an anodized coating. The aluminum rings
are considered a "sacrificial" part, meaning that they are going to take some abuse and need to be
replaced periodically. As such, the anodized coating is not designed to protect the rings in winter
climates where chemical de-icer is used. A good coat of Carnuba wax will keep the rings looking good,
but the wheel corrosion warranty does not apply to the rings.

So what's the official AEV standpoint on the issue? Our official standpoint is that these are specialty
wheels and as such are only recommended for the true enthusiast who understands the issues of a
beadlock wheel and are willing to put the extra time and energy into owning a set responsibly. AEV
Beadlock wheels are not for everyone and therefore, as a general policy, we recommend that they be
used for off-road purposes only.