INFORMATIONAL · WHEELS · SEP 04, 2018

Understanding Electric Skateboard Wheels

by Daniel Fedkenheuer

O is for Orangatang. Photo: Lotfi Lamaali

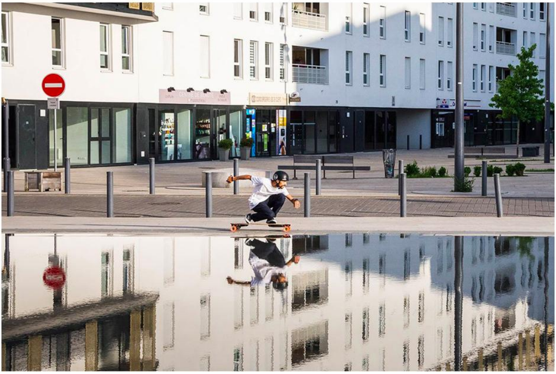
The rise of electric skateboards and longboards in the modern era has become one of the most prevalent trends in the industry, fueled by widespread appeal to non-traditional skaters and commuting urban professionals. Though the concept of a battery operated skateboard has been around since the late 1990s and has experienced minor innovations in development over the years, the technology never truly saw a practical application until around 2012. At this time, a successful backing of the Boosted Boards campaign on Kickstarter brought a legitimate electric skateboard to the market for the first time. From there, cosigns from massive YouTube influencer, Casey Neistat, propelled Boosted Boards to the top while a host of other companies quickly recognized their success and mobilized to build similarly competitive products.

During this first-to-market race, the foremost electric skateboarding companies spent the better part of their time concerned with the functionality, safety and maintenance of the motors instead of other important board components: most notably, the wheels. Instead, companies like Boosted Boards went on to pair their complete setups with the trusted offerings of Orangatang Wheels, already had years of experience designing and engineering wheels that skaters everywhere grew to love.

Added bonuses of Orangatangs include matching with Autumn colors perfectly for the 'gram. Photo: *Lotfi Lamaali*

As the electric skateboarding market matured, the influx of copycat companies began to flood the marketplace with countless options of varying features and capabilities. As such, many of the top e-skate companies have since taken matters into their own hands and started offering their own proprietary wheel as a further point of differentiation.

In 2018, most e-skate manufacturers market their own specific wheels that come stock on their newest releases. However, with the latest boards at the top of the price range, many consumers turn to older models for a more affordable option. Plus, many of the boards that have been out for several years come have been tested more thoroughly and have more reviews for customers to evaluate. That being said, we wanted to highlight our selection of longboarding wheels compatible with electric skateboards, starting with original generation models and moving forward.



Loaded/*Paris team rider, Lotfi Laamali boosting past his own reflection. Photo*: *Lotfi Lamaali*

Orangatang In Heat

In Heat
orangatang
In Heat
orangatang
In Heat
orangatang

Compatible With:

- Boosted Boards V1

Specifications:

Front wheels **only** may be replaced by standard In Heats. Back wheels require special built in drive from Boosted directly.

Description:

The Orangatang In Heats were the first wheel to come stock in Boosted Boards' original run. Though they have since been replaced with newer models, these wheels still provide a smooth all around run. Poured with Orangatang's signature Happy Thane formula, these wheels stay grippy when you need but also have the ability to slide as you'd like. Featuring a stiff core that sits in the middle of a beefy construction with 75mm of urethane, this wheel is designed to maintain speed and minimize vibrations along your commute.

Orangatang Kegel

KEGEL
KEGEL

Compatible With:

- Boosted Boards V1
- Boosted Boards V2
- Boosted Mini S / Mini X
- Boosted Plus
- Boosted Stealth
- Evolve Skateboards w/ Drive Gear for Kegel Orangatangs 32T
- Evolve Skateboards w/ Drive Gear for Kegel Orangatangs 38T

Specifications:

For 2nd Gen Boosted Boards, both front and back wheels can be replaced, thanks to the more effective belt system that the company added to their lineup. However, the process of replacing the back wheels requires a carefully removing the motor cap, loosening motor screws and altering the tension of the motor belt. Though the folks at Orangatang have made some thorough step by step guides like this one here, this still takes a lot more work than replacing standard skate wheels. Be sure to exercise caution in replacing the stock wheels on these.

For Evolve Skateboards using drive gear adapters, the 32T and 38T models differ in the amount of torque generated. Where the 32T adapter will provide more top speed, it will not provide as increased acceleration as the 38T drive gear. To that end, the 38T adapter is able to summit steeper inclines and has more responsive braking capabilities. With the increased accelareation however, the potential for more unexpected falls comes into play. Those inexperienced will likely have a better experience with the 32T adapter while the 38T drive is better suited for more experienced riders.

Description:

The Orangatang Kegels are a massive step up from the In Heats in terms of sizing, but that doesn't mean they forgot to keep things light and fun. Instead, they added a huge ventilated core on these wheels to maintain all the extra urethane you could ask for while shedding any added weight. In essence, the Kegels were designed to keep riders upright no matter what cracks, potholes or divots the city throws their way. With a sharp lip profile and and a smooth 56mm contact patch, these things are poised for a one solid run after another.

Orangatang Caguama

orangatang
CAGUAMA
made in california
85mm > 56mm contact > 80a
orangatang
CAGUAMA
made in california
85mm > 56mm contact > 83a

Compatible With:

- Boosted Boards V1
- Boosted Boards V2
- Boosted Mini S / Mini X
- Boosted Plus
- Boosted Stealth
- Evolve Skateboards w/ Drive Gear for Kegel Orangatangs 32T
- Evolve Skateboards w/ Drive Gear for Kegel Orangatangs 38T

Note: Though the Evolve Skateboards drive gears are titled 'for Kegel,' they are perfectly compatable with the Caguamas.

Specifications:

Being that the Orangatang Caguama's feature the same core as the Kegels, the specifications for proper installation are all identical to the aforementioned process. For Boosted Boards, be sure to exercise the proper care in detaching the board's motor cap and loosening the screws and belt that keep the motor running smooth. For Evolve Skateboards, be sure to select the proper drive gear, either the 32T or the 38T to reflect the amount of torque that you would feel comfortable riding. As a recommendation, beginners should err on the side of caution and choose the 32T while more experienced riders may feel comfortable to take on the 38T.

Description:

If you thought the Kegels were a big step up from the In Heats, then the Orangatang Caguamas are on another level. At a whopping 85mm, these wheels contain more of their signature Happy Thane formula than any other Orangatang Wheel in existence. Nevertheless, they feature a similar hollow core as the Kegels to avoid being too bulky and even feature a textured 3D mold unlike any other wheel on the market. Given their sheer size, these things are intended to maximize speed and overtake any bumps or debris, no matter the pavement. Plus, for added smoothness, the Caguamas feature a perfectly rounded lip profile that handles seams in the pavement far better than similar wheels.

ABEC 11 Flywheel

ABEC 11
83mm
78a
FLYWHEELS

Compatible With:

- Evolve Skateboards w/ Drive Gear for ABEC 11 Flywheels and Evolve GT Wheels 32T
- Evolve Skateboards w/ Drive Gear for ABEC 11 Flywheels and Evolve GT Wheels 38T

Specifications:

These wheels are compatible using the same standard drive gear adapter for all of Evolve’s GT series, in addition to Evolve's Gen 2 boards. Not only do these gears accommodate smaller wheel sizes well, they perform especially well when paired with larger wheels like these 90mm beasts. Aimed at providing increased top speed, this gear opens up a world of possibilities for those looking to step up from Evolve’s stock wheel options.

Similar to the drive gears for the Kegels and Caguamas, Evolve also makes two iterations of their drive gears for the ABEC 11 Flywheels available in 32T or 38T. In the same style as the other adapters, the larger of this pair provides around 20% more torque than the basic model. Again, this gear is recommended for more advanced riders due to the increased acceleration and braking capabilities.

Description:

If you weren’t already taken aback by the size of the Caguamas then surely the ABEC 11 Flywheels will be the ones that blow your mind. Coming in at an unfathomable 90mm, these are among the thickest wheels we carry and come with all the perks of a tank-like build. Whether its rolling over anything that would stop street wheels in their tracks or maintaining higher speeds than most race wheels could ever dream of, the Flywheels are built to last and have some amazing runs along the way.

Other:

InBoard Technology

Stoked Ride Shop team rider, Brandon DesJarlais, making use of the Inboard M1's replaceable front wheels with a nose manual in Mallorca.

As one of the higher end options on the market, the Inboard M1 has been revered for it's innovation in pioneering the in-wheel motor system, rather than using an exterior motor. With that being said, they hold quality similar to 1st Gen Boosted Boards, whereby their back wheels cannot be changed. However, their standard front wheels can easily be swapped with any standard longboard wheel. These wheels tend to wear out at the same rate as the back wheels though, so any changes or alterations to these wheels should be made purely for aesthetic purposes.

Acton

Nick Jones showing what a little flick of the remote can do on an Acton Blink

Similar to the Inboard M1, many of the boards from Acton are able to have their wheels switched out as long as they do not contain hub motors. In their most popular boards, the Blink S and the Blink S2, the front wheels may be replaced with any standard longboarding wheel with that measures 83mm. Specifically the 83mm ABEC 11 Flywheels are a perfect option for this.

It should be noted, however, that the wheels on Acton's newest BLINK QU4TRO cannot be swapped out. As the world's first 4WD electric skateboard, each of the four wheels have hub motors that cannot be interchanged

Still got questions? In case we missed anything here or you had general skate-centric comments, questions or concerns you'd like us to handle, feel free to shoot us a message here.

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