DT Swiss is on a mission, a mission to bring eMTB riders the components they need. The people behind this mission are people who know, understand and most importantly, ride eMTBs. So go ahead and discover our understanding of what eMTBs are here for and discover the technologies we apply to make it happen.
MISSION HYBRID

RIDE FURTHER

250 watts of extra power broaden the horizon even for the fittest of us: Energy sapping ground and snowy rides just get a whole lot more fun. And what used to be an epic ride turns into a two hour experience condensing the vertical gained, the trails ridden and the vertical crushed. It’s really like riding TO HEAVEN AND BACK.

Going on your familiar rides with the power of an olympic XC athlete lets you start to see the terrain with different eyes: Reverse the direction and you notice riding up trails is a lot of fun. Riding a root carpet at twice the speed, that long, painful push up the baby head gravel road to get to ride that secret trail? Now a game of navigating the obstacles, it allows you to TURN PAIN INTO FUN.

RIDE HARDER

Beyond bringing new people into the wonderful sport that mountainbiking is, eMTBs allow die hard athletes to share their riding adventures with their partners, their kids and virtually anyone who ever dreamed to go fast and far. Seasoned mountainbikers starting to feel their age continue to do their demanding loops. And riders which have to carry many hats in real life can still join their wednesday night group ride. So yes, eMTBs really are making sure that EVERYONE ROCKS AND ROLLS.

SHARE THE RIDE

WHAT’S THE MISSION?

DT SWISS HYBRID
THE AVERAGE eMTB RIDERS SEASON

- Average distance covered: 3500 km
- Peak system torque: 180 Nm
- Elevation gained & destroyed: 70'000 m
- Average power output: 400 W
- Average speed: 21 km/h
An eMTB is much like a german sportscar: You expect it to work flawlessly all the time: When you hop in for a sporty summer drive where you slam through the gears AND when you commmute in it during winter, just happy that the heating works. Fact is, you want it to perform and be reliable. This is just what our HYBRID wheels deliver. Follow us on the next pages to find out just how they do it.
The lab is where our HYBRID components are put to the test. Here we keep refining and finding new test procedures to simulate what happens on the trail as accurately as possible. All with one goal: To make your wheels even better and develop them even faster than today.

Over the twenty years DT Swiss has been developing wheels, we have gathered an unparalleled testing know how. With this know how and a tightly knit test rider group, we are able to design a wheel just right for its intended use. By verifying and knowing the loads occurring in real world riding, our in house wheel testing equipment can quickly go through a wheels whole lifetime to double check its performance for the intended use. Still many iterations are needed to find that perfect strength to weight ratio for a given application. To do these product development iterations, you need the ability to quickly prototype products. We have set up a global network of inhouse and external specialists that make this happen. Enter Philipp Lüdi: It’s the network he built and is leading. Being a die hard mountain biker himself, he also makes sure that the wheel prototypes that are tortured on the test benches, also hit the dirt as quickly as possible. Because in the end, what a rider feels through his arms, legs and butt is what ultimately counts.

PHILIPP LÜDI
MANAGER PROTOTYPING TESTING
When testing to our set HYBRID standards, we found two things: 1. The spoke contact area needs to be strengthened, 2. There are areas that can be kept just as lightweight as on regular MTB rims. These findings have led us to optimize the profile of our HYBRID rims for weight in non critical areas and reinforce them where it counts. Classified for a 150 kg system weight they are available in 25, 30 and 35 mm widths for increased traction and comfort.

### Torque test force
- **Standard MTB rim**: 400 Nm
- **HYBRID rim**: 500 Nm

### Spoke pull out force
- **Standard MTB rim**: 100% Reference
- **HYBRID rim**: 20% Above reference

### Loaded dynamic test
- **Standard MTB rim**: 120 kg system weight
- **HYBRID rim**: 150 kg system weight

### Durability test  Tested to min.
- **Standard MTB rim**: 13 Standard lifecycles
- **HYBRID rim**: 27 Standard lifecycles

Putting our HYBRID hub prototypes through the rigorous testing procedure, it showed that many components were strong enough for the high demands, but only just strong enough. Therefore we took many small measures to strengthen the whole hub system. As a result, HYBRID hubs feature increased wall thicknesses in the oversized shell, high load axles and oversized spoke interfaces. This is complimented by new, hardened steel 24T ratchets, oversize bearings and steel rotors. Via this clever optimization we have achieved a 150 kg system weight classification with only a minimal weight increase compared to same level MTB hubs. The final result is a gem of a hub that can withstand huge torque loads, offers quick engagement and when used in combination with our HYBRID system components is part of an amazingly robust wheel set.
The best of the best. Where do you start? At the center: A super reliable straight pull spoke interface. Lightweight spokes that are eMTB strong. A stiff, precise full carbon hookless rim. But the whole really is even greater than the sum of its parts with the HXC 1200 SPLINE, it’s a wheel that accelerates like no other, has traction like no other and is precise like no other. Out on the trail it is an absolute blast!

**WEIGHT FROM** 1647 g
30 mm\[1]  27.5 II 29
**EUR** 2248 \[2]  
**USD** 2962 \[2] 

\[1] Inner width  
\[2] Price from // per wheel set
HX 1501 SPLINE® ONE

For some, flow means to pedal up a never ending gravel climb and getting into a trance like rhythm. To others, flow is when corners are linked up seamlessly, dirt flying sideways. And yet another group of riders seeks new adventure in burly terrain. Either way: The wheels of the HX 1501 SPLINE ONE line up feel right at home doing all of the above. Strong, light and offering the right width for your riding needs, it climbs with the best and descends with the best. The Ratchet System is the most durable freewheel system out there, safely driving you forward in any conditions, all year round. A light and strong spec through and through makes sure you pedal into the flow, whatever your flow is.

WEIGHT FROM 1866 g
- 25 mm 27.5 II 29
- 30 mm 27.5 II 29
- 35 mm 27.5

EUR 1038 2
USD 1368 2

1) Inner width
2) Price from // per wheel set
When motor assist and human leg power meet, the range of terrain a bike can conquer grows almost exponentially. The H 1900 SPLINE are designed for that. We have given them the reliability of Swiss precision hubs, tough spokes and a strong, yet lightweight rim to head out into unknown rides, just to see how far this new man / machine system can go. But you needn’t worry: Like all of our products, passionate employees have tested the H 1900 SPLINE to their limits in the notoriously rough and steep Jura mountains. To prove their reliability so you don’t have to, for that and because it’s a whole lot of fun.

**H 1700 SPLINE®**

Versatility. A mountainbike is meant to go up and down mountains and to provide fun while doing so. The H 1700 SPLINE do precisely that. And since e-bikes allow the rider to go up and down many mountains in one ride, reliability is key. And weight, because fun is to be had. On the H 1700 SPLINE both requirements are met. With an unparalleled know how in wheel component manufacturing and industry leading testing processes, we are able to design and spec a wheel set to perform just as required. And this is what we did on this wheel, to leave you the part of pedalling up and down mountains.

**H 1900 SPLINE®**

When motor assist and human leg power meet, the range of terrain a bike can conquer grows almost exponentially. The H 1900 SPLINE are designed for that. We have given them the reliability of Swiss precision hubs, tough spokes and a strong, yet lightweight rim to head out into unknown rides, just to see how far this new man / machine system can go. But you needn’t worry: Like all of our products, passionate employees have tested the H 1900 SPLINE to their limits in the notoriously rough and steep Jura mountains. To prove their reliability so you don’t have to, for that and because it’s a whole lot of fun.

**WEIGHT FROM 1968 g**

25 mm

<table>
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<td>27.5 II 29</td>
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**WEIGHT FROM 1998 g**

25 mm

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<tr>
<td>27.5 II 29</td>
<td>EUR 387</td>
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H 1950 CLASSIC

The new H 1950 CLASSIC is the best possible wheel for any adventure, whether it’s on narrow city streets, bumpy forest roads or discovering what’s at the end of the map. The technology of the H 1950 CLASSIC has been specifically developed for e-bikes and gives you the reliability and robustness you need when you’re in the middle of nowhere. The 25 mm rim width provides plenty of support, ensuring that whether you have an E-MTB, E-Urban or a fully-loaded touring bike, the H 1950 CLASSIC will be your trusty companion.

**WEIGHT**: 2149 g

- 25 mm $^1$
- **EUR** 387 $^2$
- **USD** 510 $^2$

$^1$ Inner width
$^2$ Price per wheel set
### RATCHET SYSTEM

The patented freewheel system, which features high-precision star ratchets, guarantees top performance and reliability. Two springs press the star ratchets against each other to engage. All the teeth of the star ratchets engage simultaneously, which creates a large contact surface and reduces point loading. The modular system makes it simple to maintain, change the axle configuration, and replace both the freewheel body and the star ratchet.

**Engagement Angle**
- 18 T - 20° / 36 T - 10° / 54 T - 6.6°

**Freehub Body Kit**
- Shimano, Shimano steel, Shimano Micro Spline, Sram XD MTB

**Bearings**
- High-quality bearings, low friction thanks to single sided seals, 2080 N load capacity per bearing.

**Tested To Maintenance**
- Test to 13 standard life cycles of a wheel. 450 Nm torque tested.
- No-tool concept for quick and easy maintenance.

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### PAWL SYSTEM

At the heart of every bike is the rear wheel hub and freehub system. A pawl system is the traditional option for creating a solid freehub system. In the unique DT Swiss version, annular springs push three hardened, high-precision pawls outwards to engage with the thread ring. The modular system makes it simple to maintain and change the axle configuration and the freehub body.

**Engagement Angle**
- 15°

**Freehub Body Kit**
- Shimano, Sram XD MTB

**Bearings**
- High-quality bearings, low friction thanks to single sided seals, 2080 N load capacity per bearing.

**Tested To Maintenance**
- Test to 13 standard life cycles of a wheel. 400 Nm torque tested.
- No-tool concept for quick and easy maintenance.
«The eMTB has lit my fire for the sport like the first Stumpjumper I bought back in 1986 has, when I first put its knobbies to the dirt. I immediately knew that these bikes will have a great future and slowly realized what we could contribute to make them even greater. Once we had mission HYBRID outlined, we quickly worked together as an organization to make it happen. I am super stoked on how it came out and I am even more stoked for what’s coming up. »
RIMS

HX 491
- 25 mm
- 27.5 II 29

HX 531
- 30 mm
- 27.5 II 29

HX 581
- 35 mm
- 27.5

H 522
- 25 mm
- 27.5 II 29

H 552
- 30 mm
- 27.5 II 29

H 612
- 35 mm
- 27.5

HUBS

240S
CLASSIC

350
CLASSIC

\*Inner width