HOW WOULD YOU BUILD YOUR WHEEL, IF YOU COULD CHOOSE YOUR OWN COMPONENTS?

We asked us this question and we had a close look at the components mountain bikers of various disciplines use to build their own wheels.

BENCHMARK ALLOY RIMS

Looking at the market and various surveys, we saw that most mountain bikers choose alloy rims to build their wheel sets. DT Swiss rims are known and valued for their low weight, high quality and strength. Top notch alloy rims are all welded today and so are ours. In combination with our unique PHR nipple-spoke interface washer, which distribute the load on a large area, we were able to reduce the wall thickness, keeping the rotational mass low. To meet the requirements of the various fields of application we developed specific rim profiles.

CROSS COUNTRY XR 391

The XC-workhorse in our portfolio, the XR 391, has been developed to create a fast accelerating wheel. Therefore the focus was set on a low weight, which is the reason, why it has 25 mm rim inner width. This contributes to a low inertia moment.



ALL MOUNTAIN XM 481

The XM 481 is our all-mountain rim. Our goal was to develop a 30 mm wide alloy rim, which strikes the balance between weight and durability. Like the EX 511 the XM 481 got an ASTM ranking 4, but its max system weight is lighter (10 kg), at 120 kg. This difference comes from slightly thinner sidewalls, enabling to reduce the weight for efficient acceleration, around 50 g.



ENDURO EX 511

The EX 511 is one of the toughest rims out there, not just because of the welded joint, also because of the specifically developed rim profile. The rim is designed for modern Enduro mountain biking. We shouldn't communicate on the subject, since it wasn't developed for that purpose, but some of the fastest downhill racers use it for racing – what we want to say: it is strong, damn strong! With its 30 mm inner width it's wider than its sibling, the famous EX 471.



BOMBPROOF HUB

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DT SWISS

When it comes to the heart of the wheel, the hub, the selection criteria are quite clear. Reliable, lightweight and easy to maintain – all factors which DT Swiss hubs stand for. One of the most used hubs in custom-built wheel is the DT Swiss 350, which shares the DNA of the famous 240.

THE 350 HUB

The DT Swiss 350 is equipped with our famous Ratchet System. What makes the Ratchet System hubs truly unique, is the fact that all the teeth of the two ratchets engage simultaneously and create a large contact surface to transmit huge torque. The fact that the whole front faces engage, creates much smaller point loads. The result is the legendary reliability of the Ratchet System.

Thanks to the no-tool concept, the hub is very easy to maintain and the free hub body can be converted without the use of any tools.

For the new 1700 SPLINE® the 350 was upgraded by a 36T Ratchet SL system (SL stands for super lightweight achieved by machined out ratchets). It reduces the engagement angle to 10 degrees, which we believe is the sweet spot in terms of reliability, weight and power transmission.



THE SPOKES

Many wheel builders have trusted DT Swiss spokes for decades. DT Swiss has a long experience in producing light and resilient spokes. One of the most popular one is the DT Swiss Competition[®] spoke 2.0/1.8 mm.

COMP SPOKES

The competition spoke is one of the most versatile spokes in the DT Swiss spoke range. DT Competition[®] gets its special strength from a specific cold forging process. This process has been developed and patented by DT Swiss; it is used to double-butt the diameter of the spokes. Oscillating hammers rotate around the wire.

As a result the spoke material is densified and its diameter is reduced. This cold forging process helps hardens the material while ensuring that it retains its good ductility. The result is a spoke with a slim butted section for low weight and a strong head and thread for durability. This leads to extremely high durability and, furthermore, thanks to the thinner middle section, it is lighter than a spoke with a constant diameter of 2.0 mm.

HAND BUILT

Reliable components are not enough to create to a reliable wheel - the final step is decisive. The way a wheel is built is what turns quality components into a quality wheel. 14

Like all wheels developed by DT Swiss, the 1700 SPLINE® is assembled by hand. With the highest precision and the smallest possible tolerance, which until now would never be reached by a conventional wheel building machine, hundreds of wheels are assembled every week in Switzerland, Poland, Asia, and in America – by hand.



XR 1700 SPLINE®

WHEELSIZE	29
AXLE SYSTEM	15 / 110 mm 12 / 148 mm
НИВ ТҮРЕ	350 Straightpull hub with Ratchet SL 36
BRAKE INTERFACE	Center Lock (incl. IS 6-bolt adapter MTB)
RIM	Aluminum, welded, PHR-Washer
	25mm
SPOKES	DT Competition [®] , black
NIPPLES	DT Pro Lock $^{^{(\!\!\!\!)}}$ Squorx, aluminum, anthracite
WEIGHT	From 1672 g
MAX SYSTEMWEIGHT	110 kg
ASTM CLASS	3
PRICE	From 698,80 € / 885,90 \$



XM 1700 SPLINE®

WHEELSIZE	27.5 / 29
AXLE SYSTEM	15 / 110 mm 12 / 148 mm
НИВ ТҮРЕ	350 Straightpull hub with Ratchet SL 36
BRAKE INTERFACE	Center Lock (incl. IS 6-bolt adapter MTB)
RIM	Aluminum, welded, PHR-Washer
INNER WIDTH	30mm
SPOKES	DT Competition [®] , black
NIPPLES	DT Pro Lock [®] Squorx, aluminum, black
WEIGHT	From 1748 g
MAX SYSTEMWEIGHT	120 kg
ASTM CLASS	4
PRICE	From 698,80 € / 885,90 \$



EX 1700 SPLINE[®]

WHEELSIZE	27.5 / 29
AXLE SYSTEM	15 / 110 mm 12 / 148 mm
НИВ ТҮРЕ	350 Straightpull hub with Ratchet SL 36
BRAKE INTERFACE	IS 6-bolt Center Lock
RIM	Aluminum, welded, PHR-Washer
INNER WIDTH	30mm
SPOKES	DT Competition [®] , black
NIPPLES	DT Pro Lock [®] Squorx, aluminum, black
WEIGHT	From 1878 g
MAX SYSTEMWEIGHT	130 kg
ASTM CLASS	4
PRICE	From 698,80 € / 885,90 \$

DT SV/SS ENGINEERING PERFORMANCE

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