
SCOTT
GENIUS
BIKE
2013

GENIUS 2013

GENIUS 2013

TWINLOC

- Our most advanced Twinloc ever

NUDE 2

- -200g weight saving, Sophisticated damping

TRAVEL/ WHEEL SIZE BALANCE

- Perfect balance of geometry, travel and wheel size

UPDATED CONSTRUCTION AND STANDARDS

- Construction and standards updated throughout

FRAME SPECIFICATION

	GENIUS 900	GENIUS 700
Travel	0/90/130mm	0/100/150mm
Weight	2.3kg with shock	2.3kg with shock
Wheel Size	29”	27.5” (650B)
Fork	Fox 32 with CTD 130mm	Fox 34 with CTD, Talas 150/120mm
Shock	DT Nude2	DT Nude2
Frame	IMP HMX/ HMF, Alloy	IMP HMX/ HMF, Alloy

SUSPENSION SYSTEM

TWINLOC

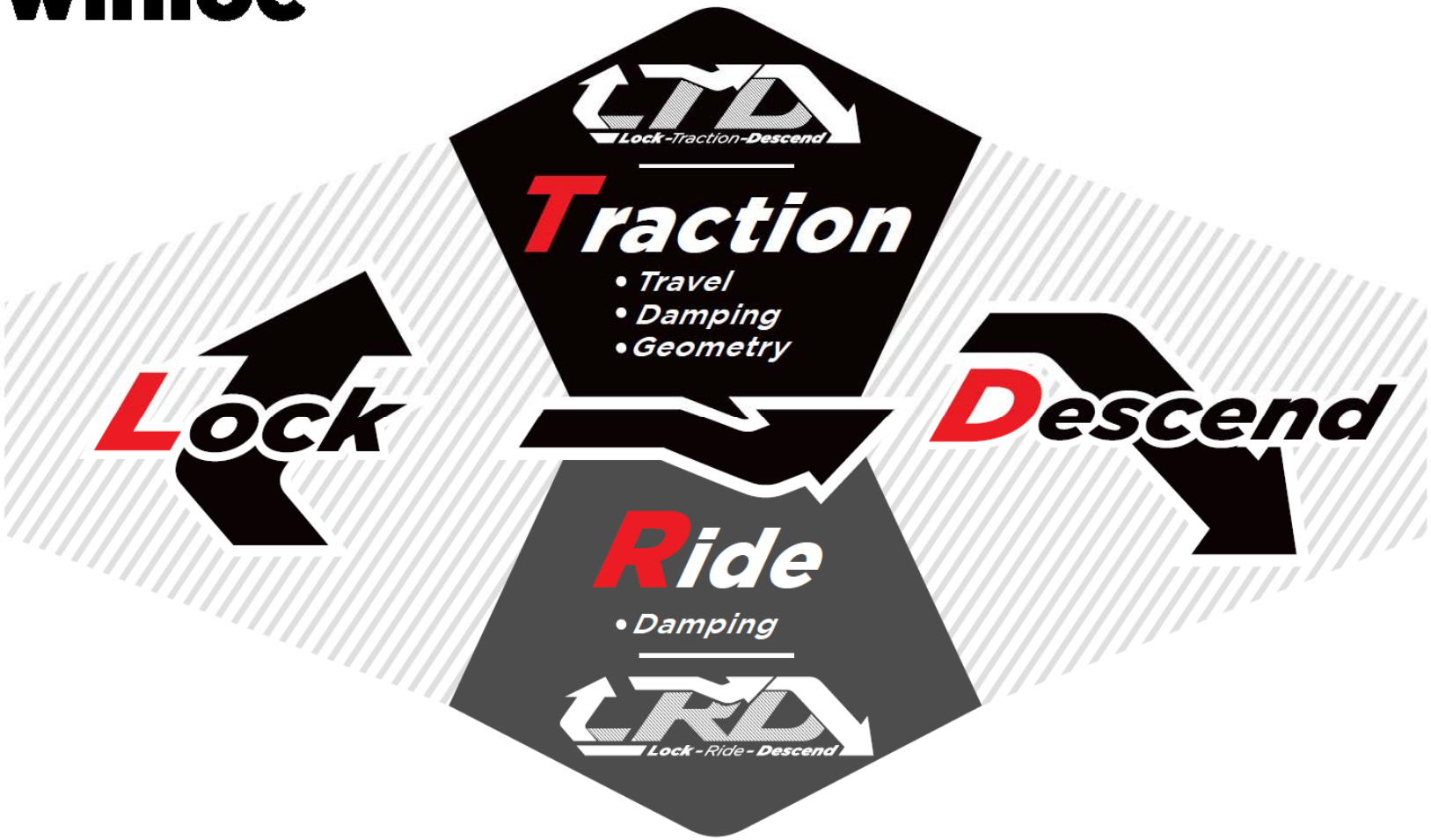
Twinloc patented

- Control fork and shock with a single lever
- Still the most advanced remote control suspension system on the market
- For the first time, all Genius and Spark models now have three distinct suspension setting on fork and shock

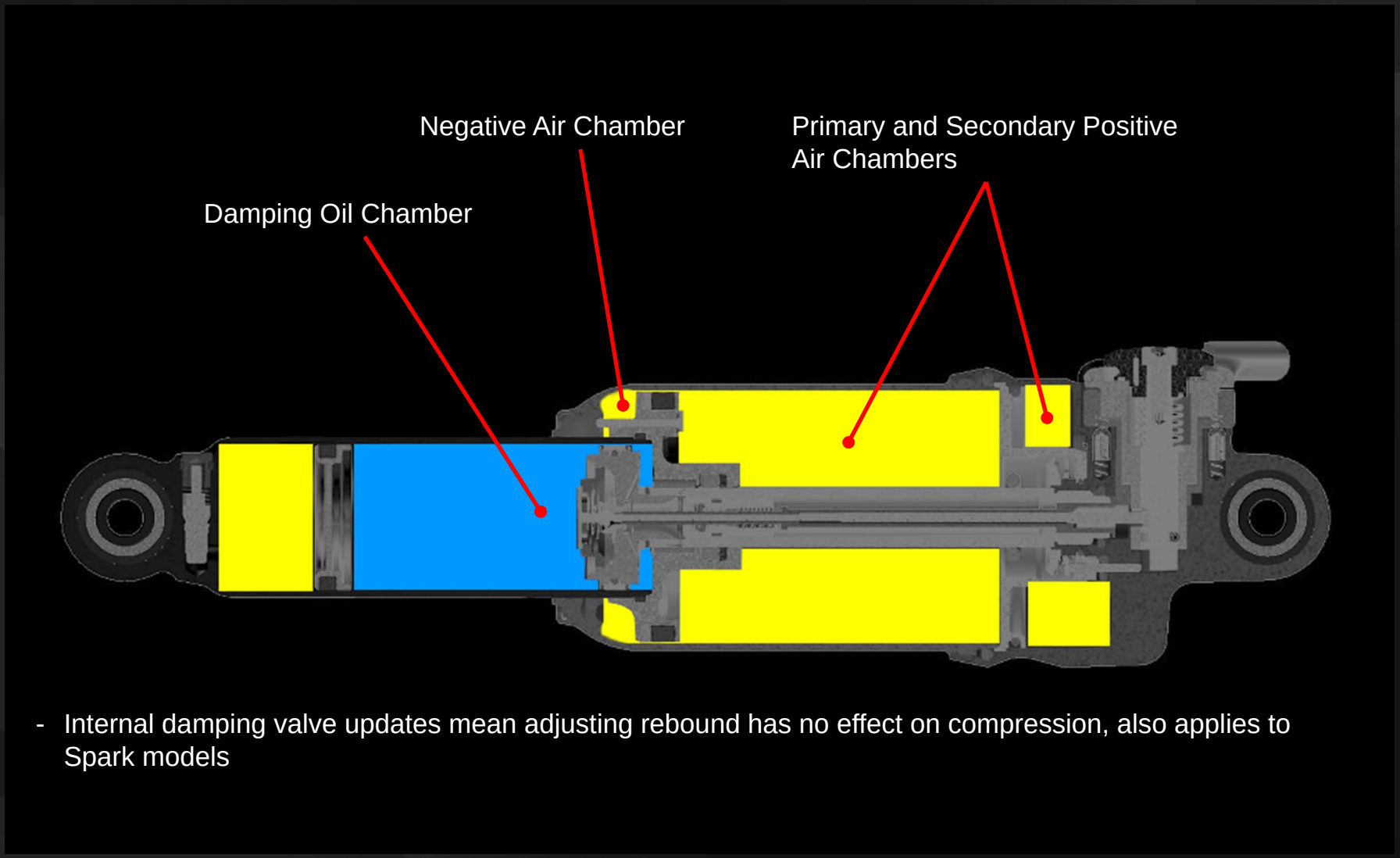
- Fox now offer fork/ shock adjustment with one lever, but only damping
- Cannondale change damping and spring, but no lockout

TWINLOC – LTD / LRD

Twinloc patented

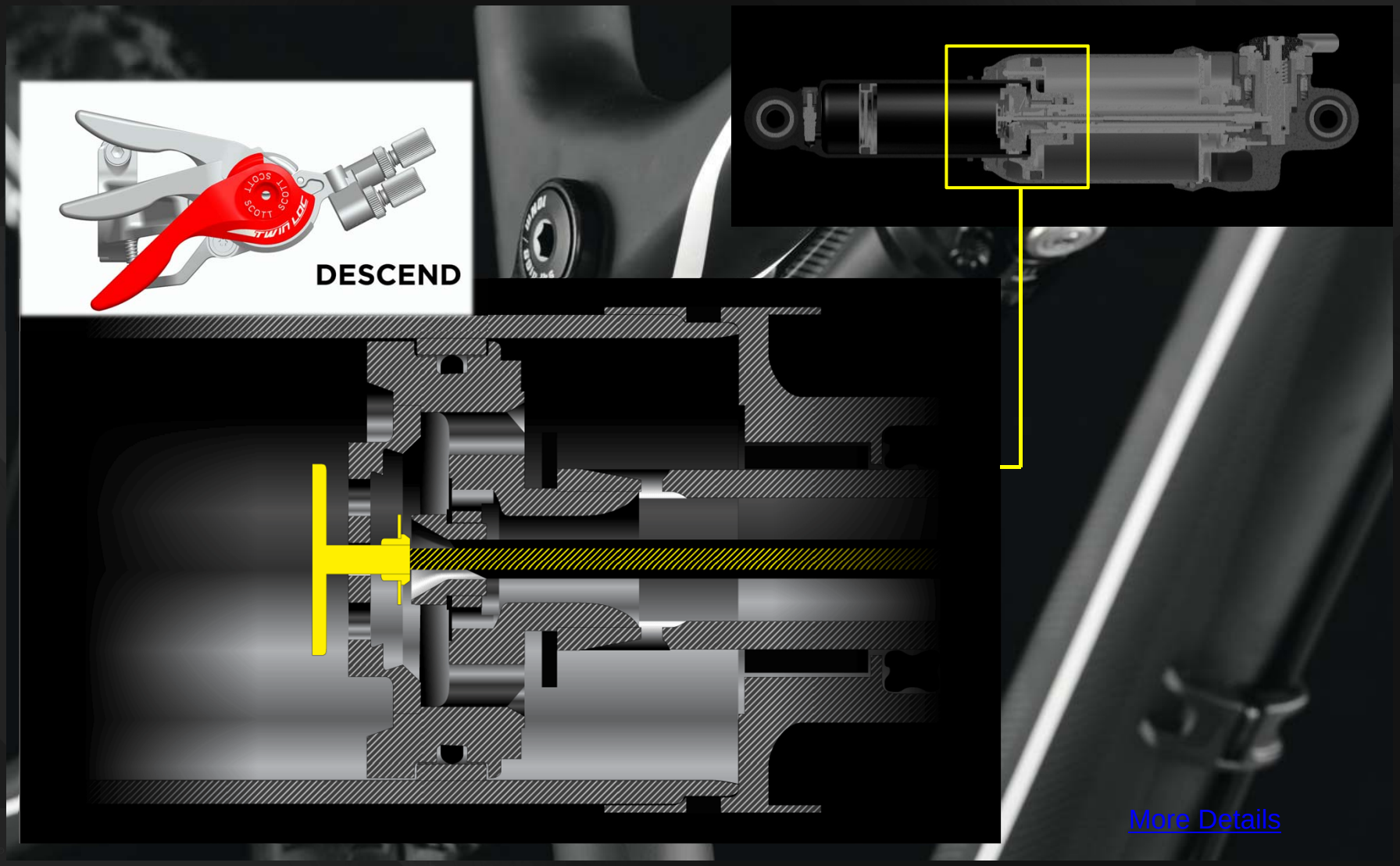


TWINLOC - NUDE 2



- Internal damping valve updates mean adjusting rebound has no effect on compression, also applies to Spark models

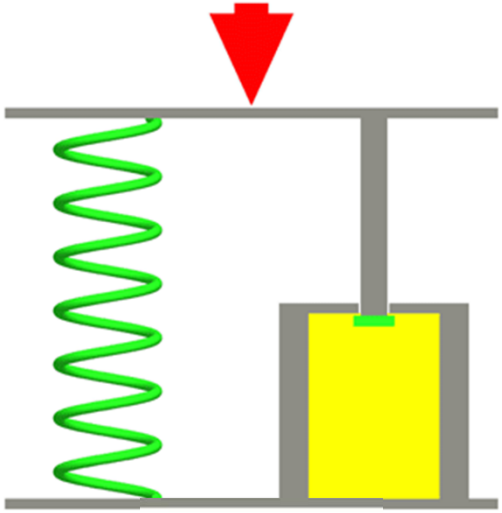
DAMPING MODES



More Details

TWINLOC – SPRING AND DAMPER

A shock absorber is a system of spring and damper.



DESCEND 

- Soft Spring (max air volume)
- Minimum Damping
- Maximum Travel

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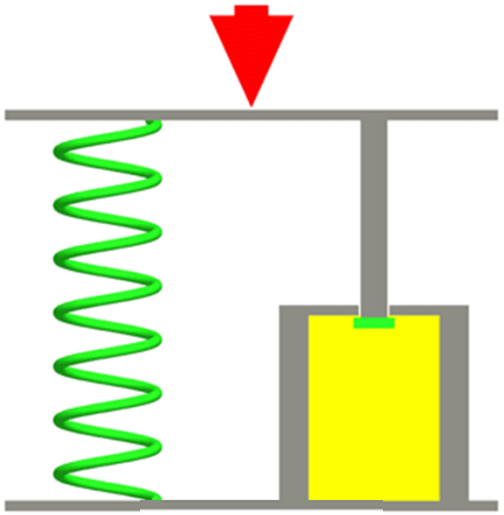

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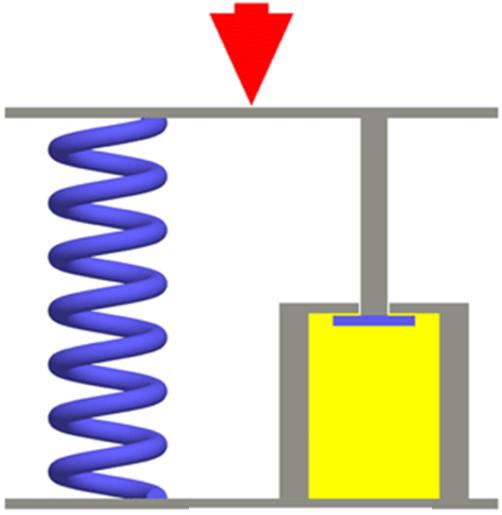


TRACTION

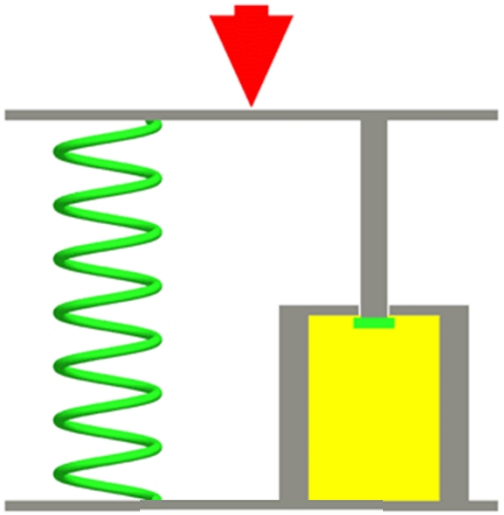
- Harder Spring (less air volume)
- Increased Damping
- Travel Reduced
- Sag Point Raised

RIDE

- On bikes with LRD, Ride mode has the same spring as Descend mode, only increased damping

TWINLOC – SPRING AND DAMPER

A shock absorber is a system of spring and damper.



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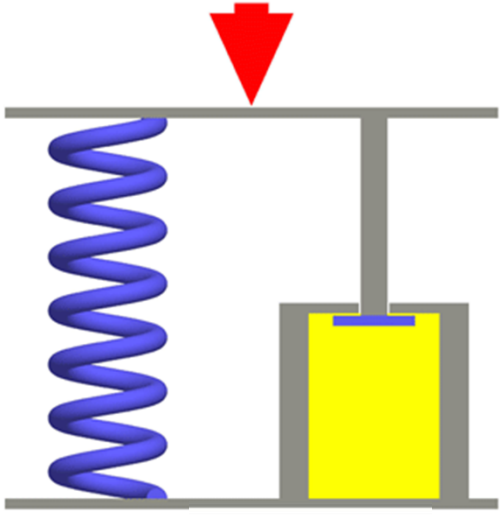

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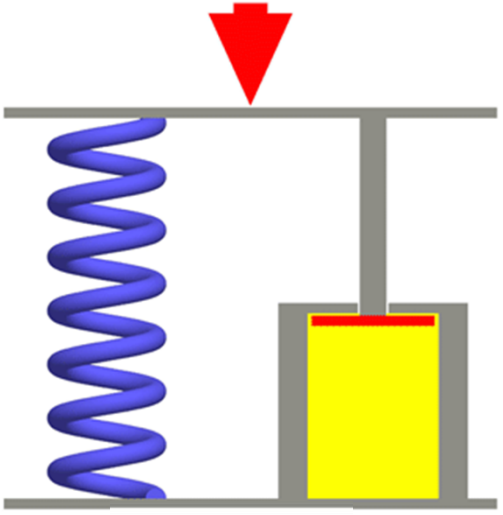


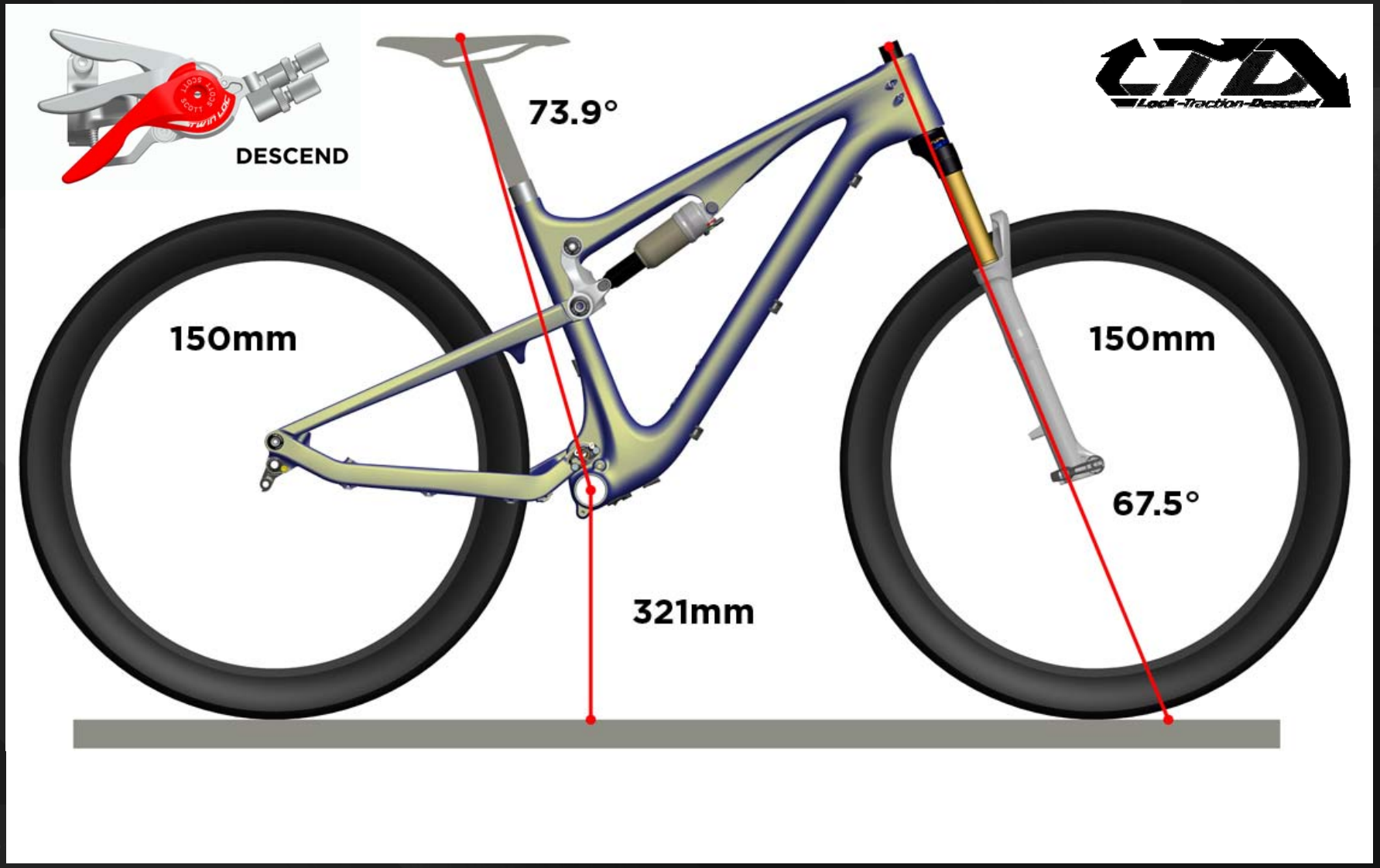
LOCK

- Closed Damping
- Blow Off
- Zero Sag

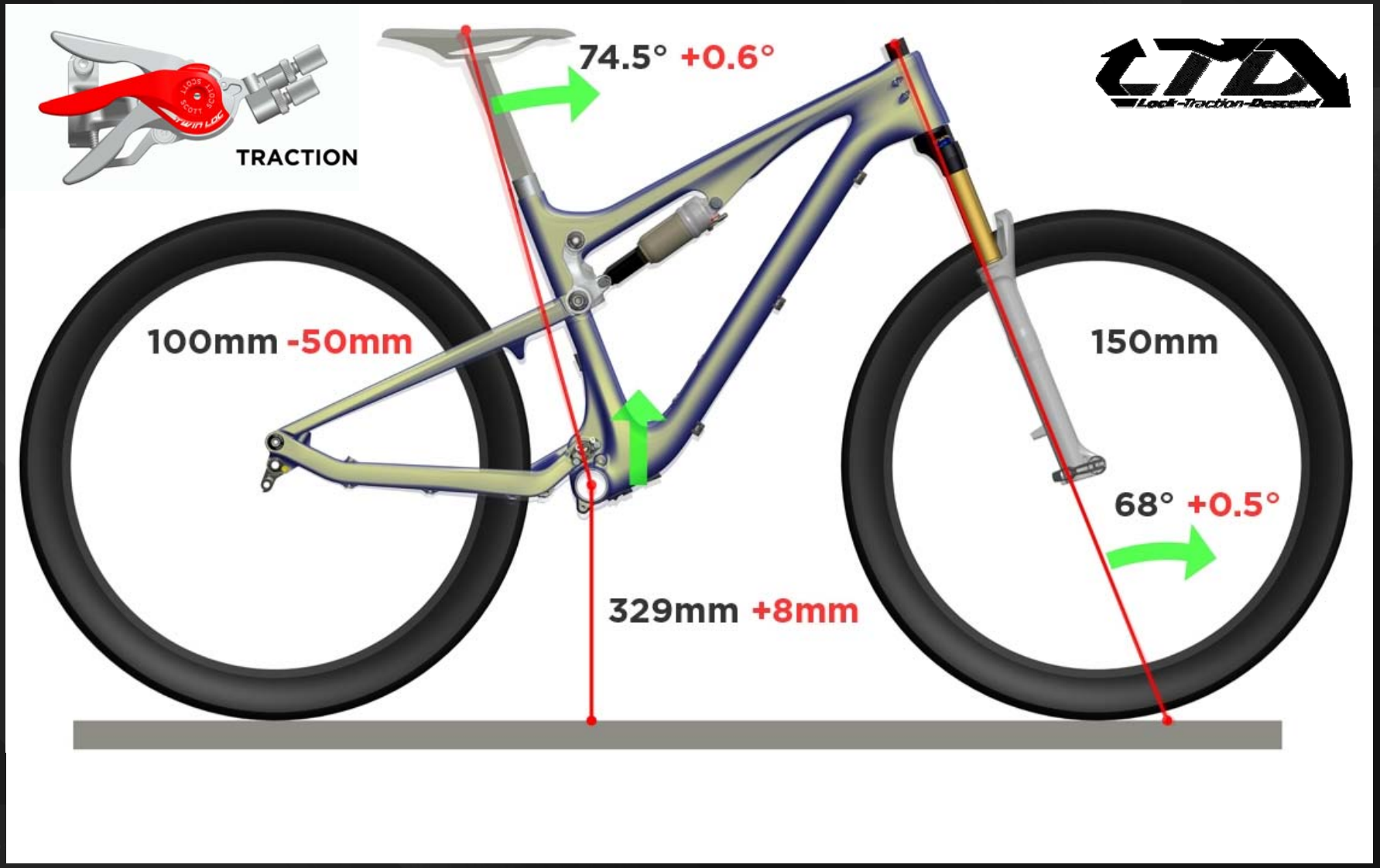
LTD Lock-Traction-Descend

TWINLOC – LTD MODE COMPARISON

TWINLOC – LTD MODE COMPARISON



TWINLOC – LTD MODE COMPARISON



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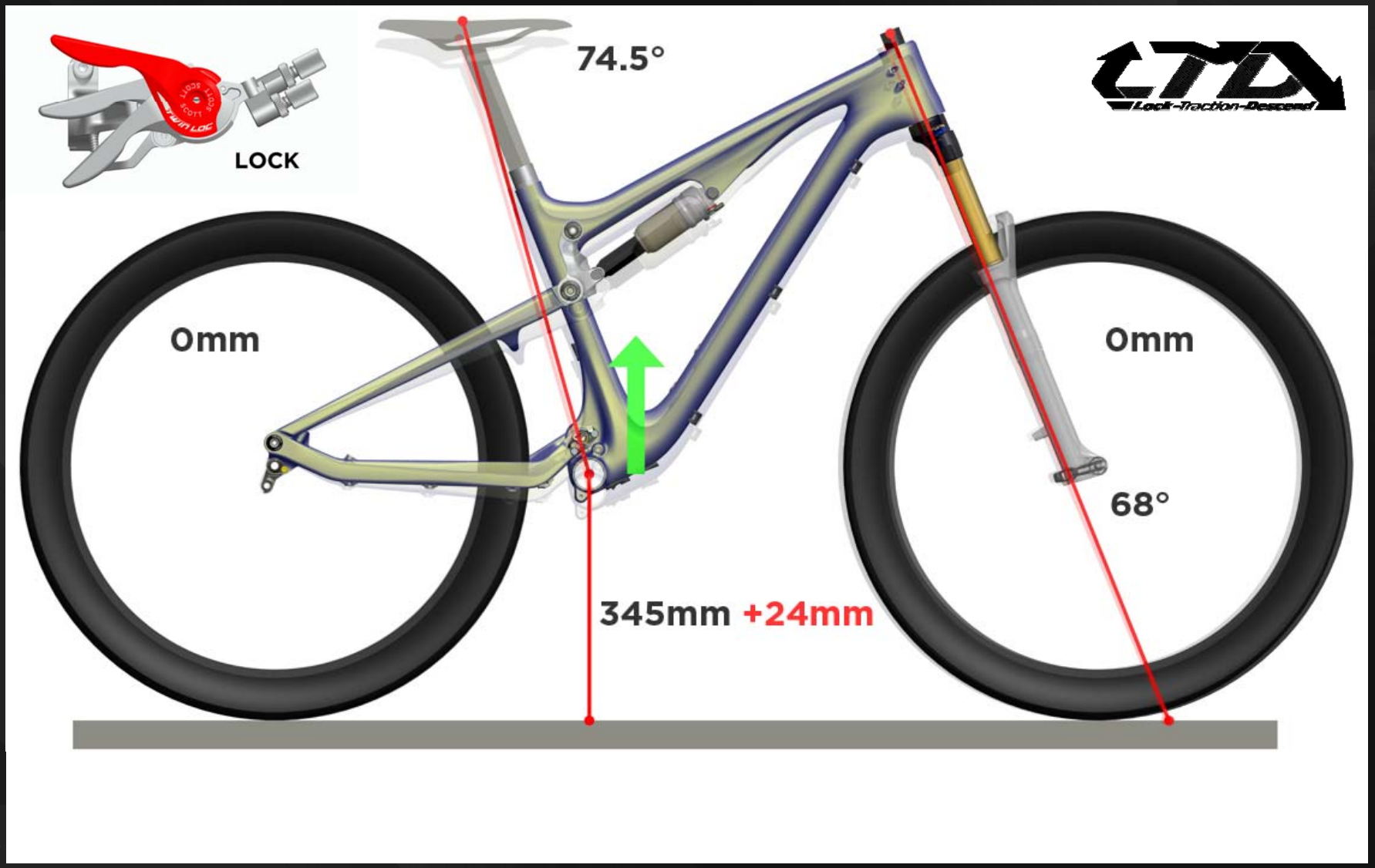
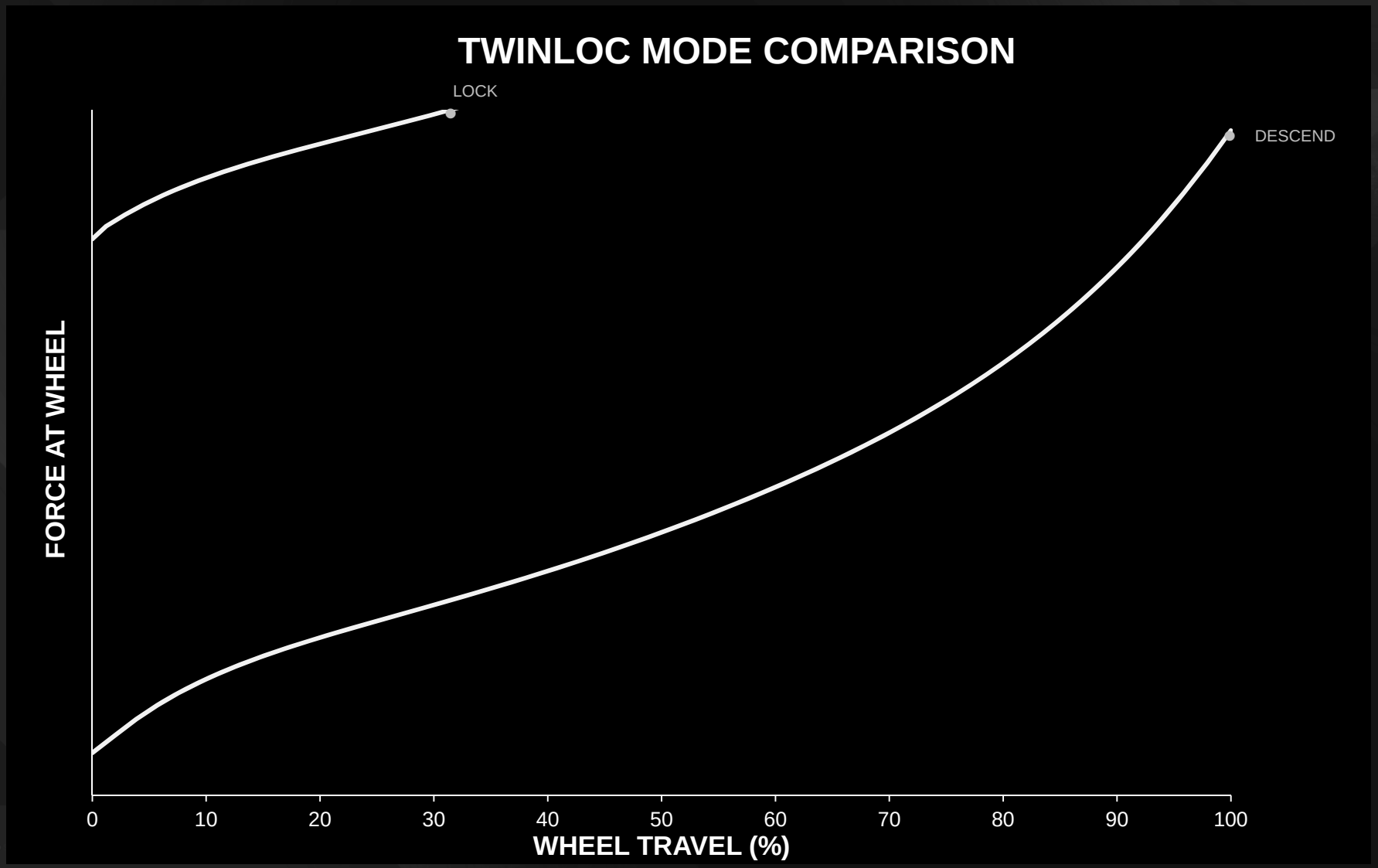


TWINLOC - WHEEL RATE



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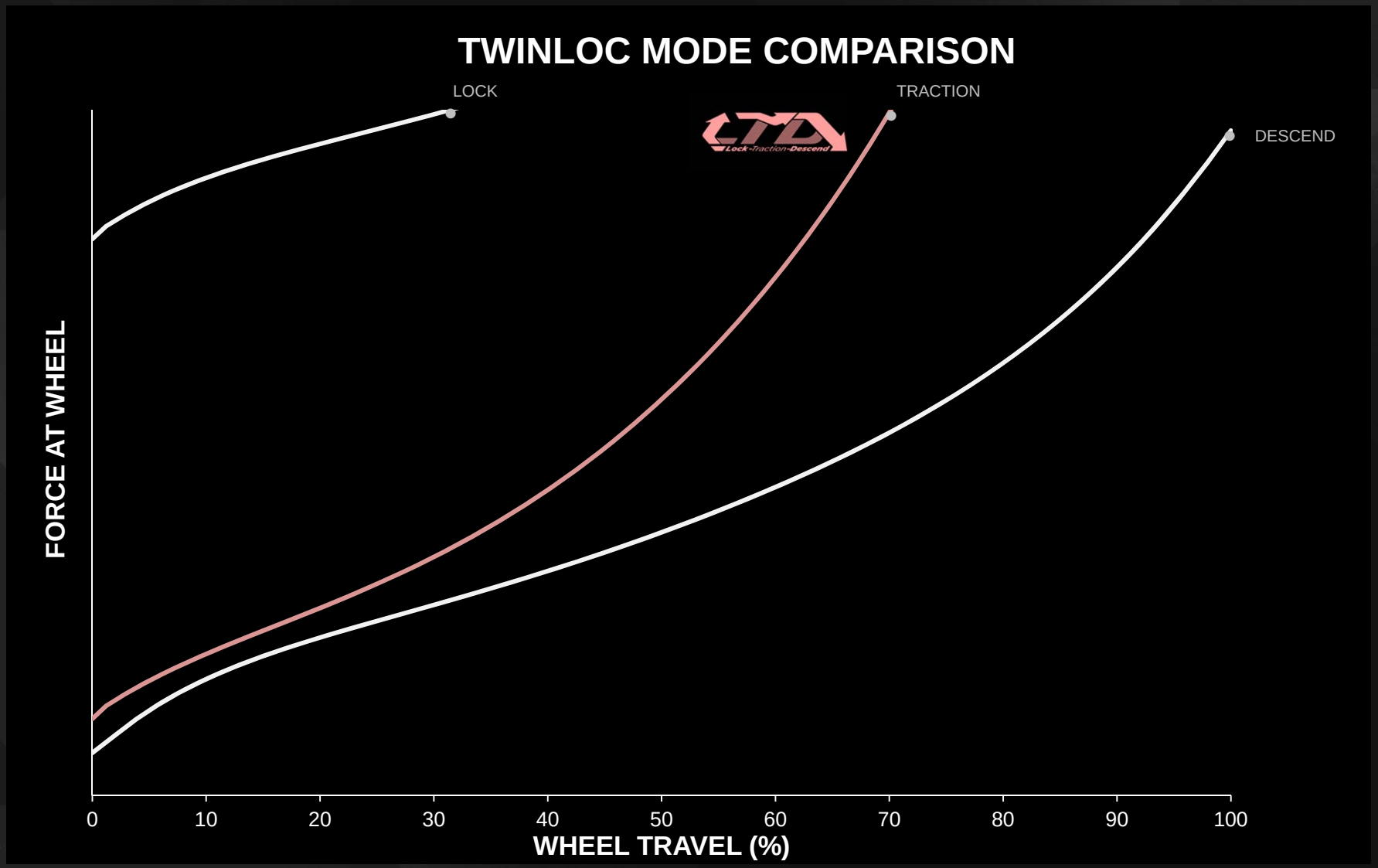

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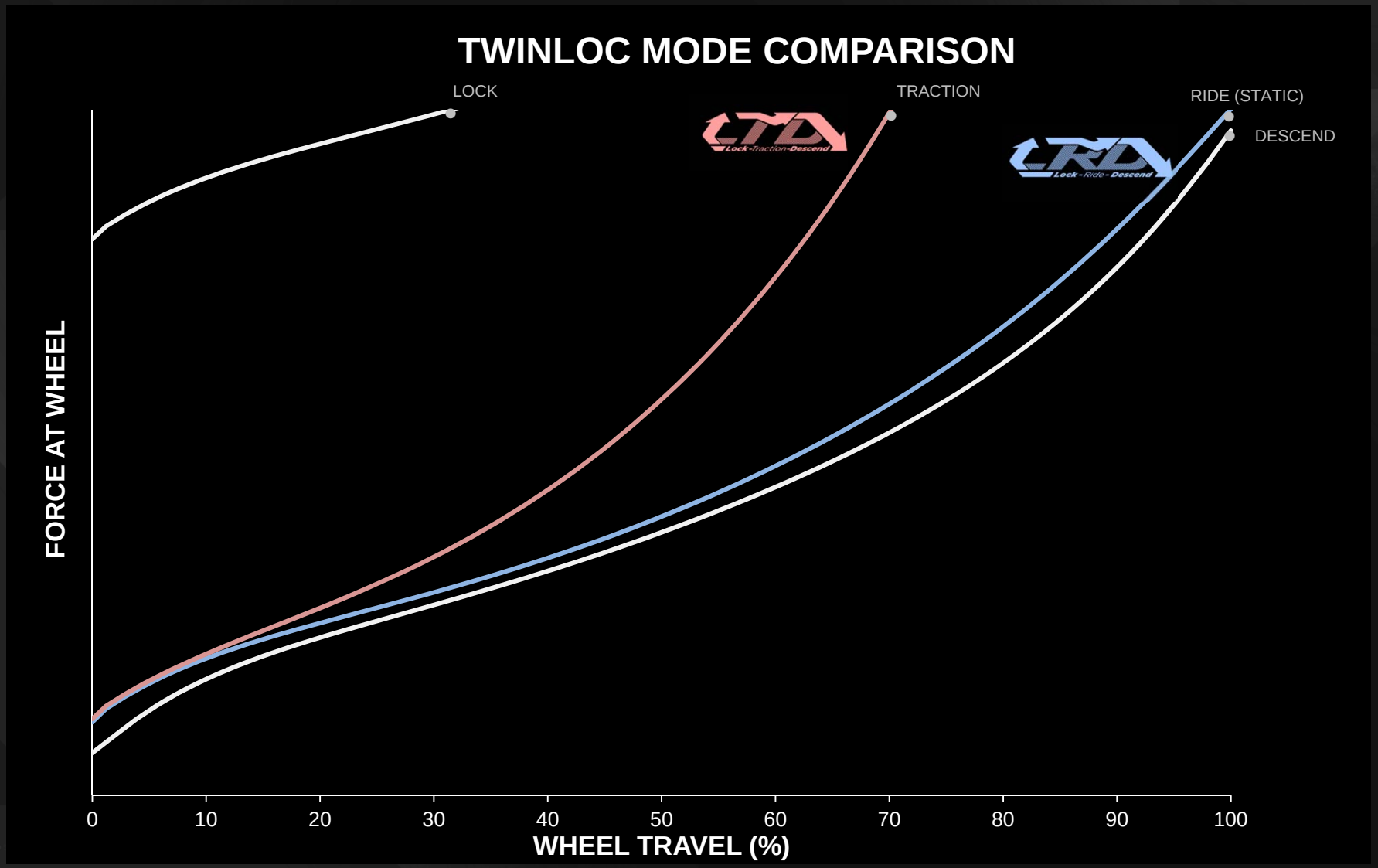

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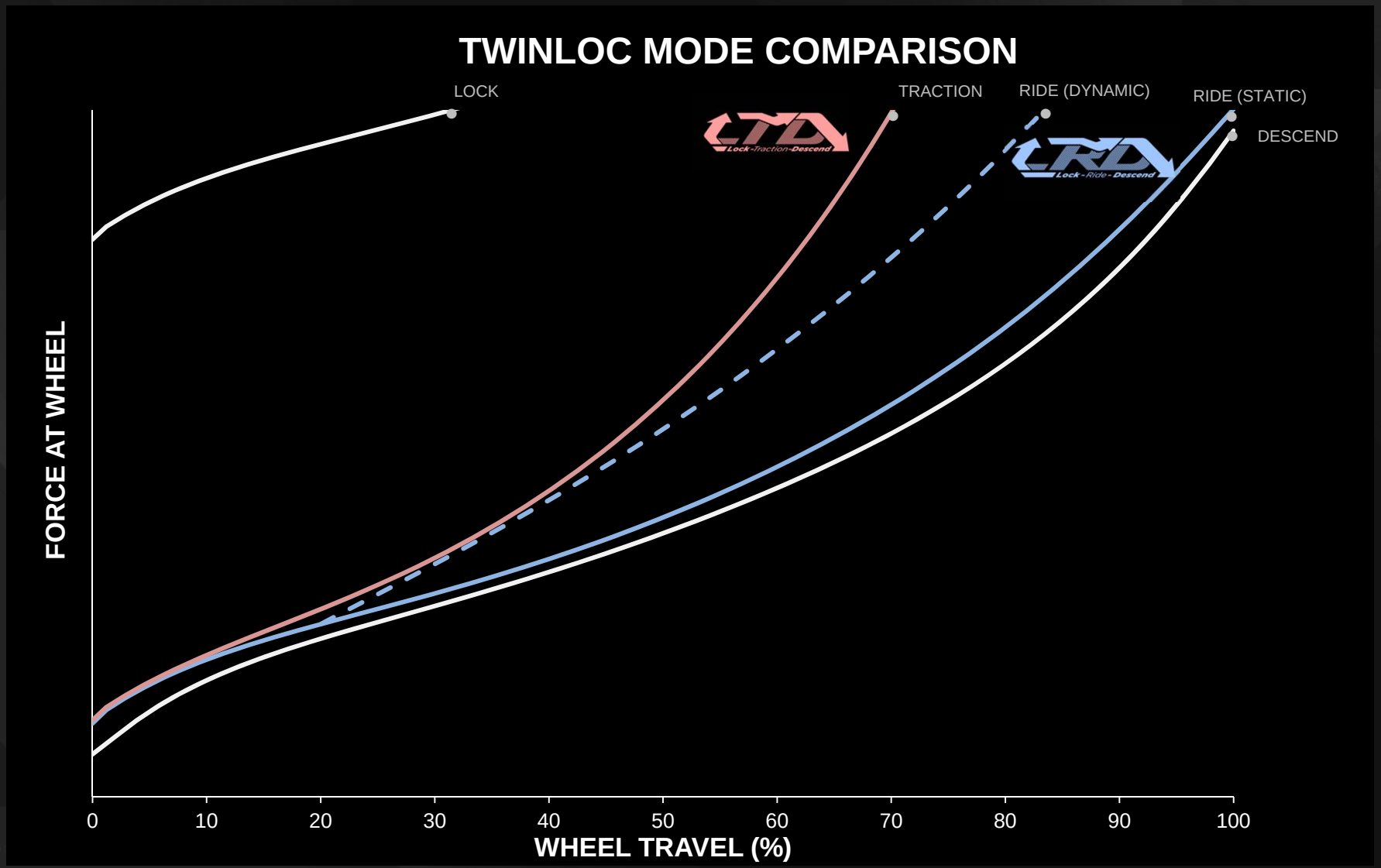
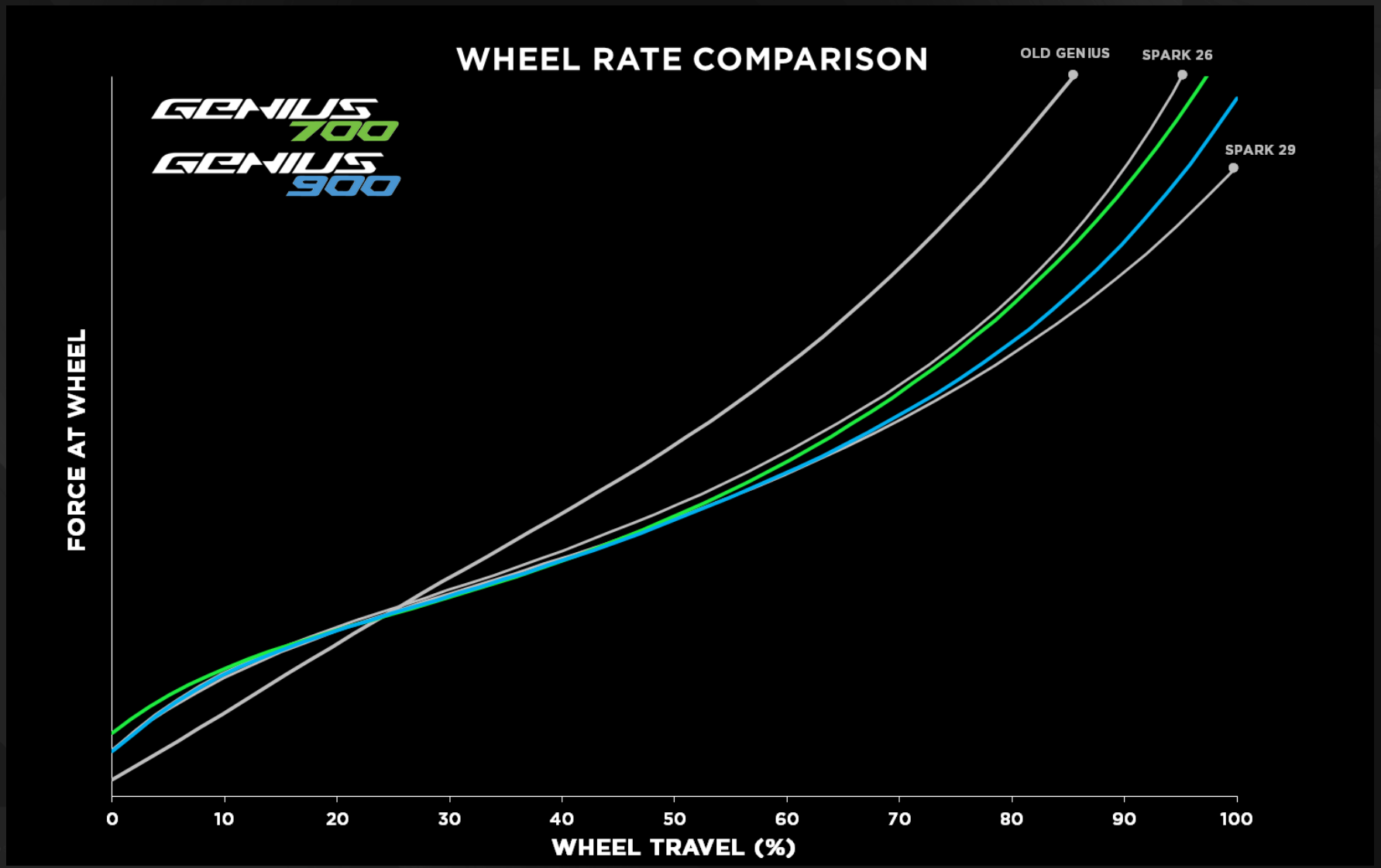
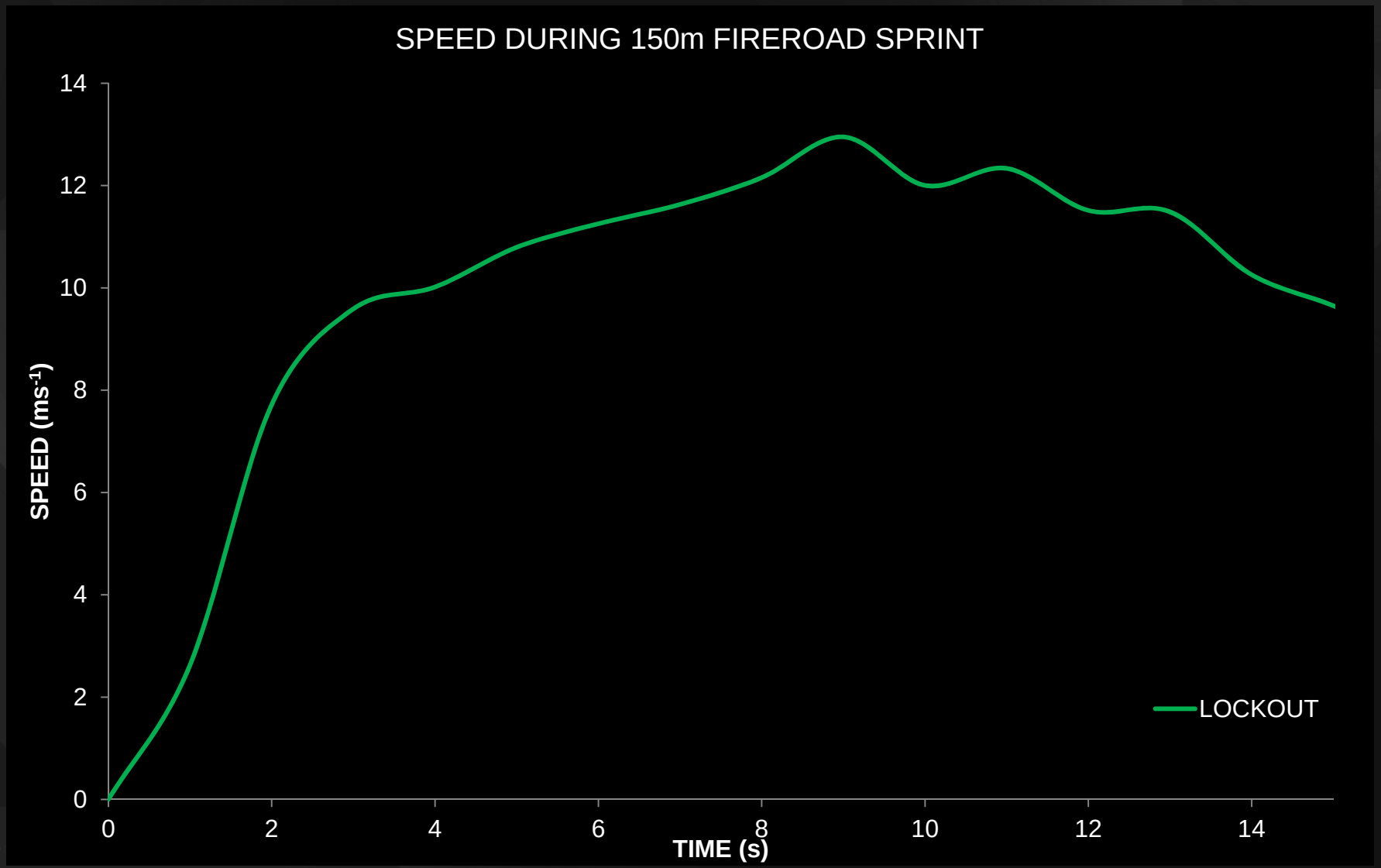


WHEEL RATE COMPARISON



SCOTT SWISSPOWER TESTING



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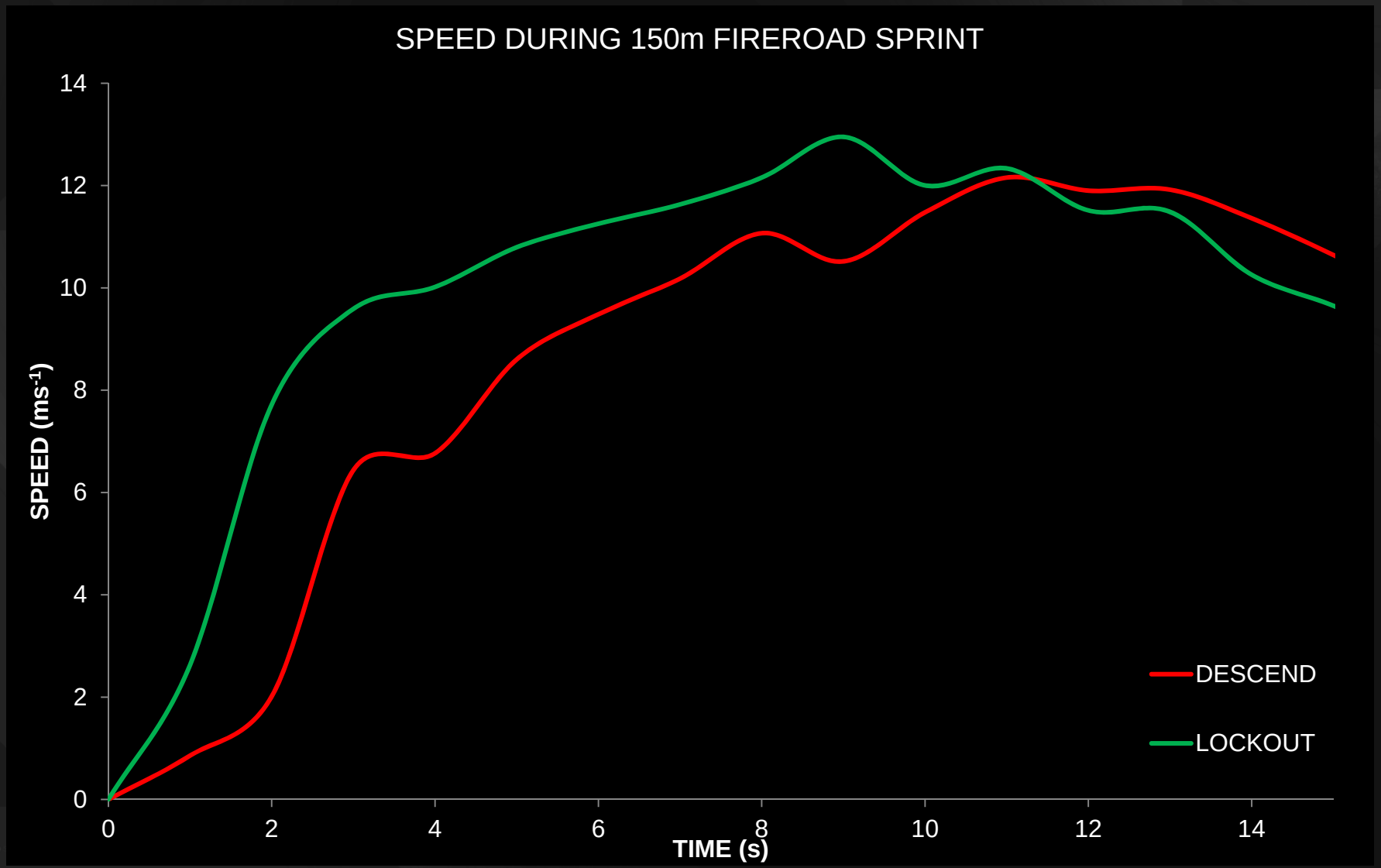

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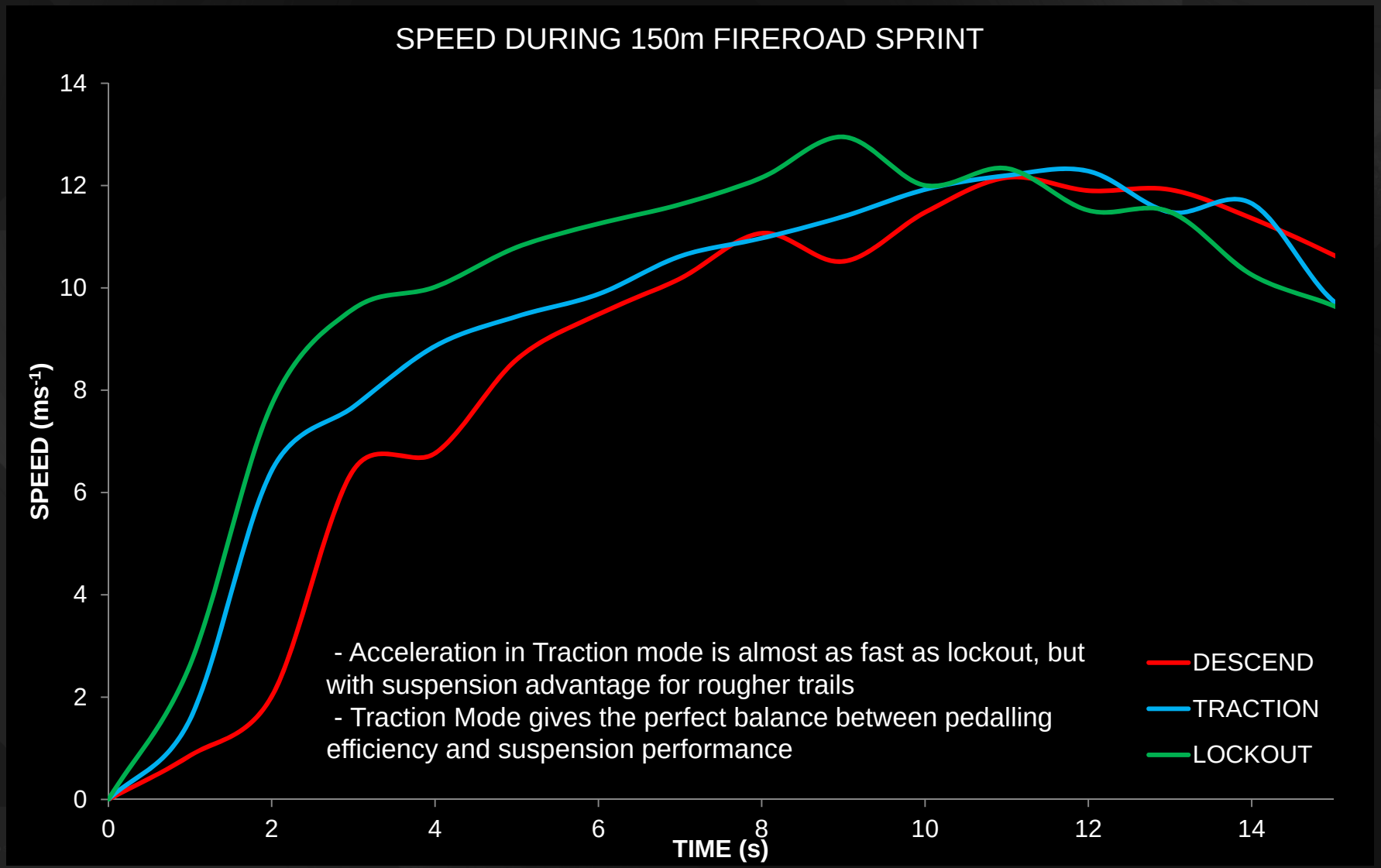

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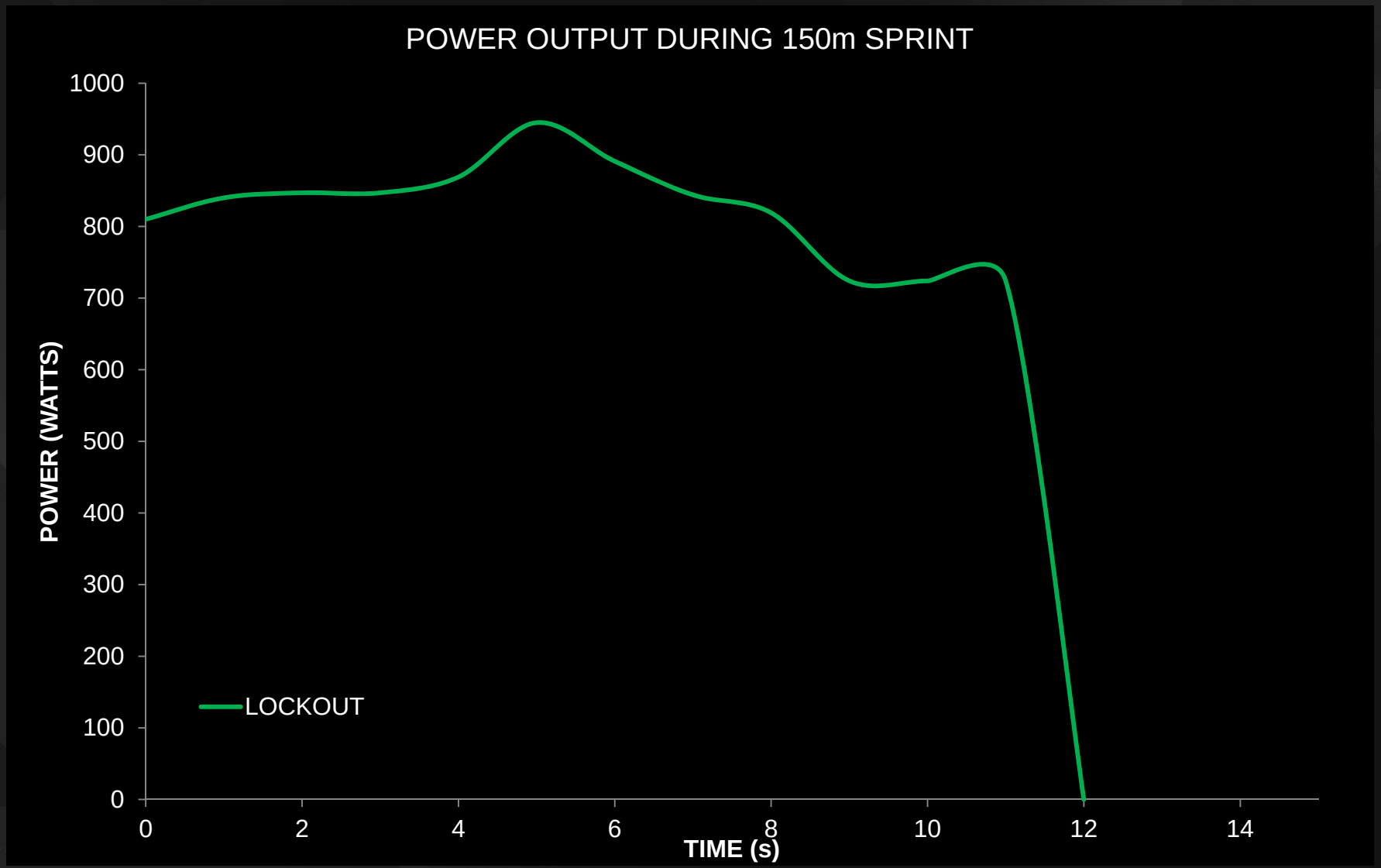

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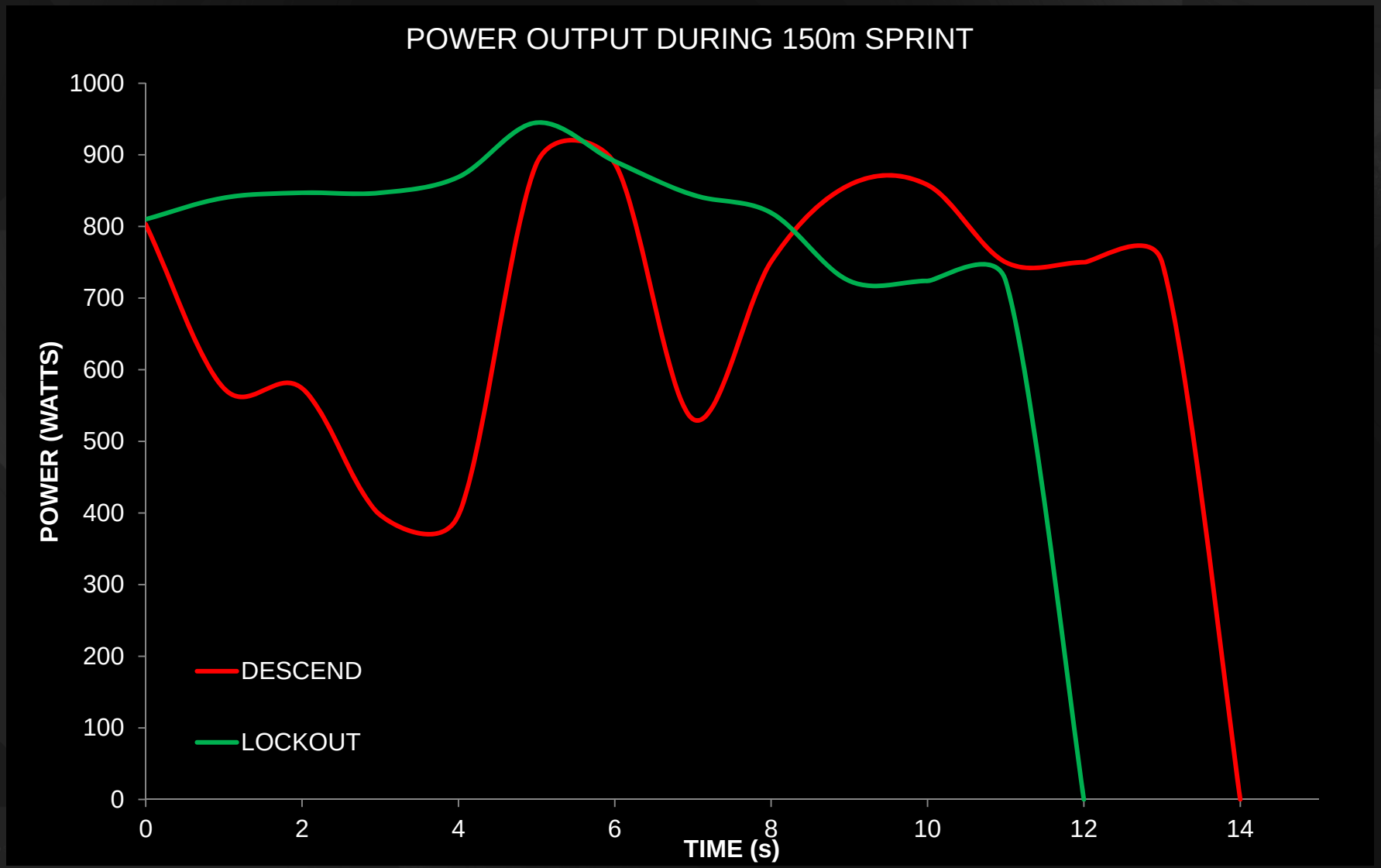

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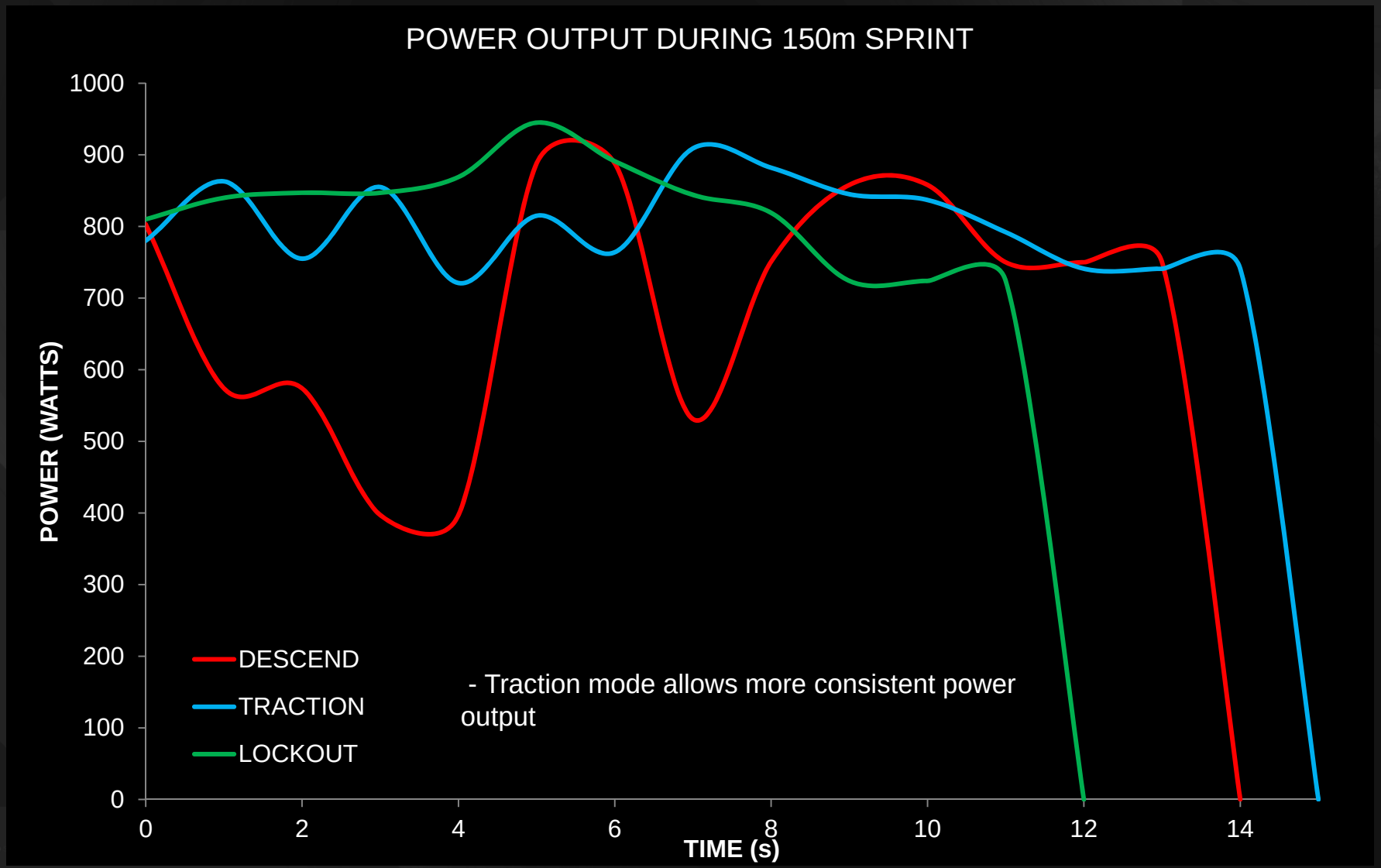
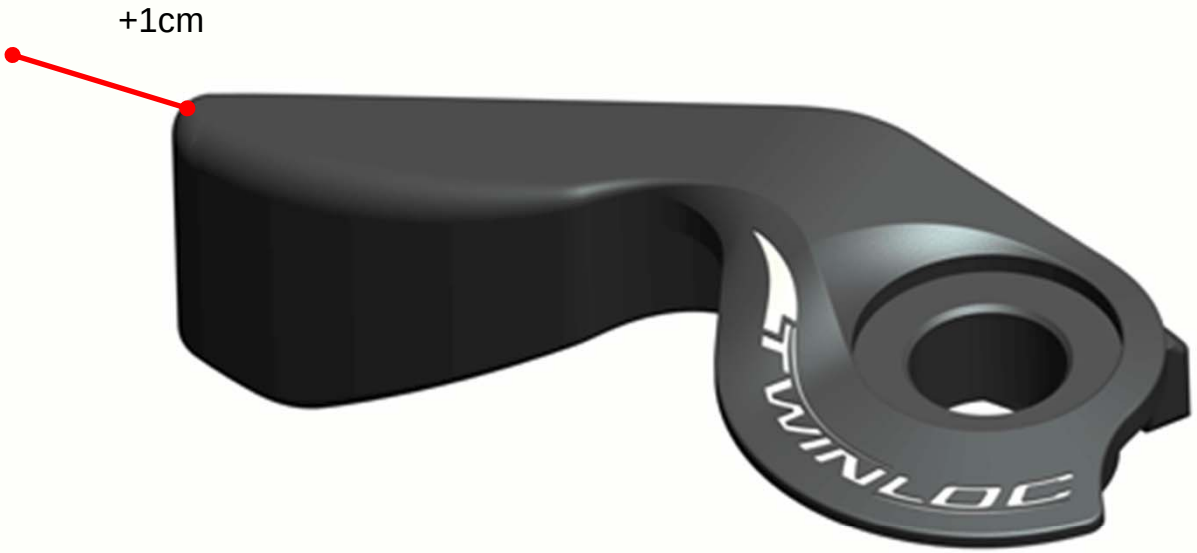


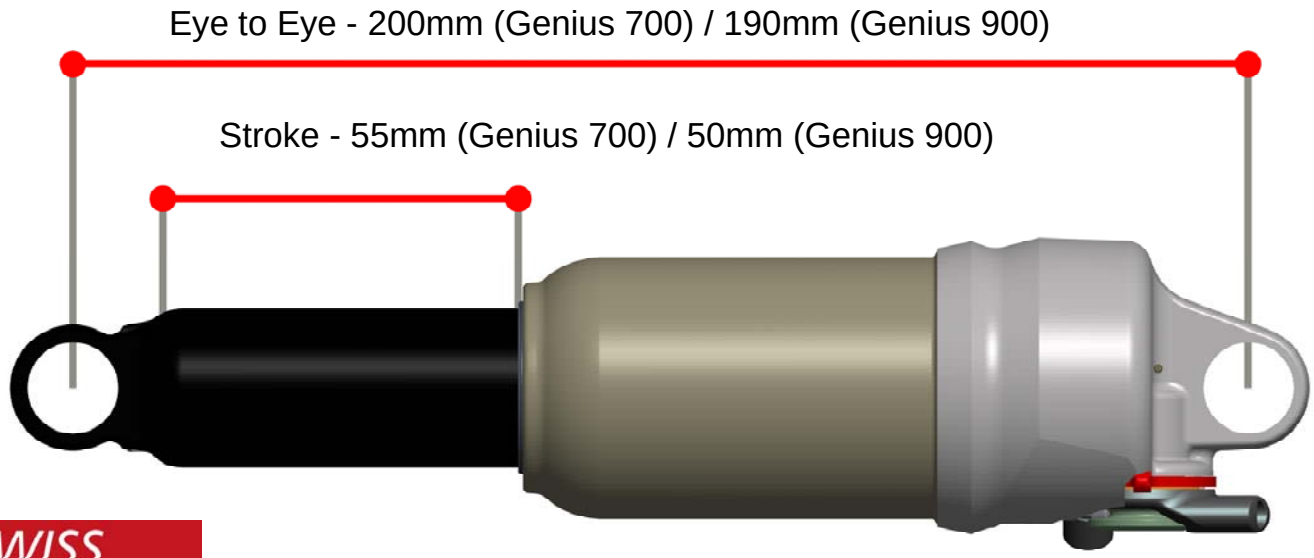
TWINLOC - LEVER

patented Twinloc



- Twinloc lever extended 1cm for even lighter touch
- Around 20% reduction in lever force
- Standard on Spark and Genius

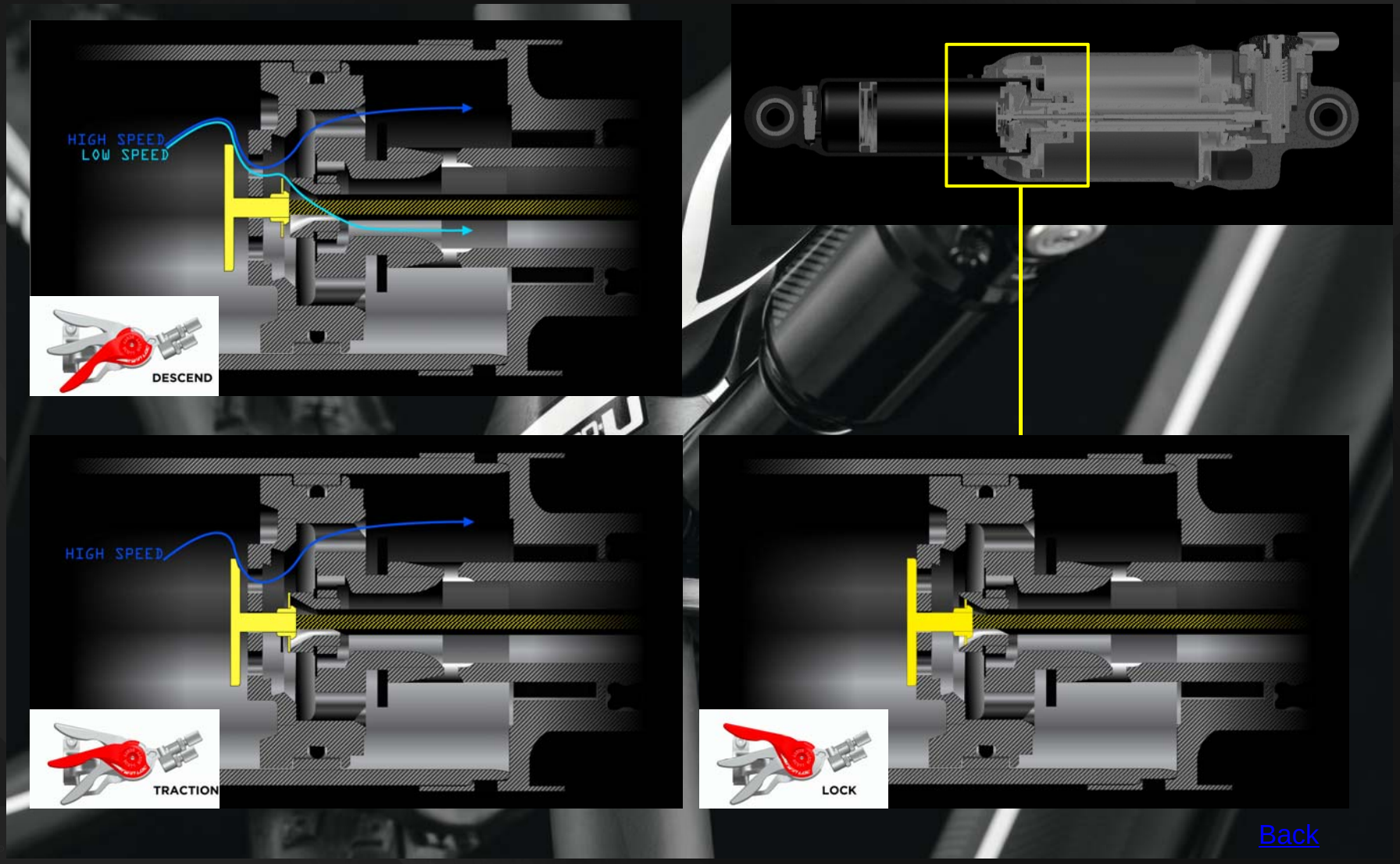
NUDE 2



DT SWISS NUDE 2

	GENIUS 700	GENIUS 900
Eye to Eye	200mm	190mm
Stroke	55mm	50mm
Wheel Travel	150mm	130mm
Ratio	150/55 = 2.7	130/50 = 2.6
Weight	241g	236g

COMPRESSION DAMPING



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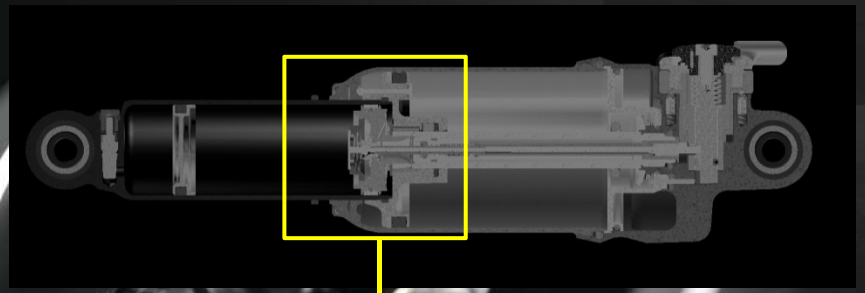
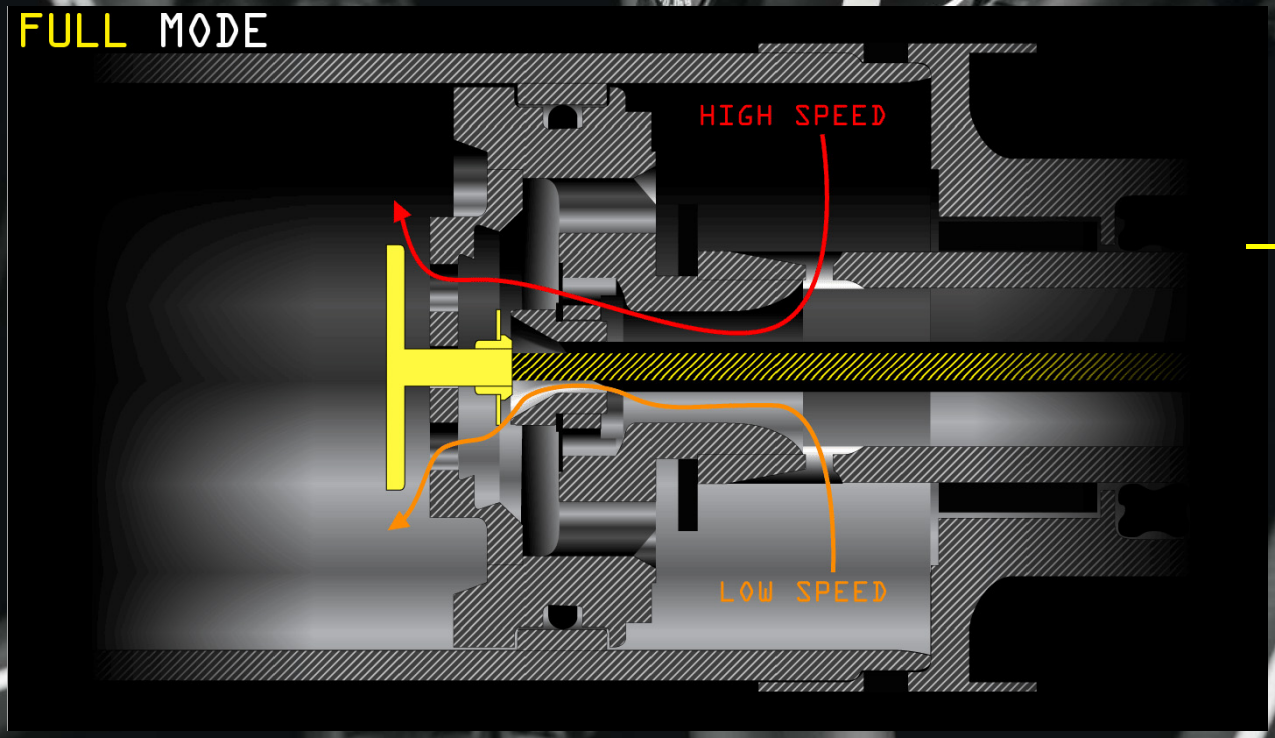
REBOUND DAMPING





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SUPSENSION – FOX CTD

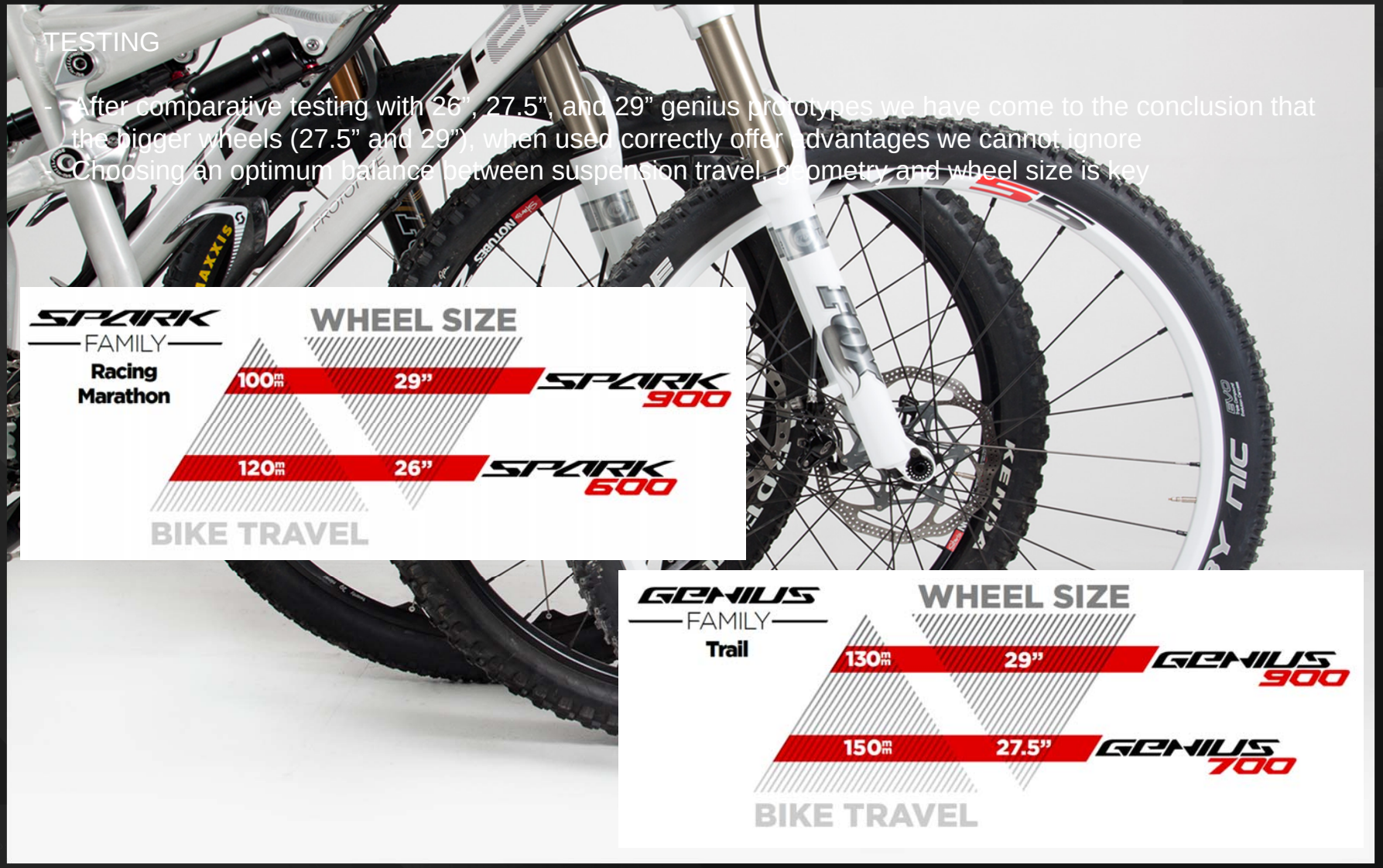
- Fox forks with CTD on all Genius
- Twinloc lever adjusts compression and rebound damping settings to offer three distinct suspension modes

GEOMETRY

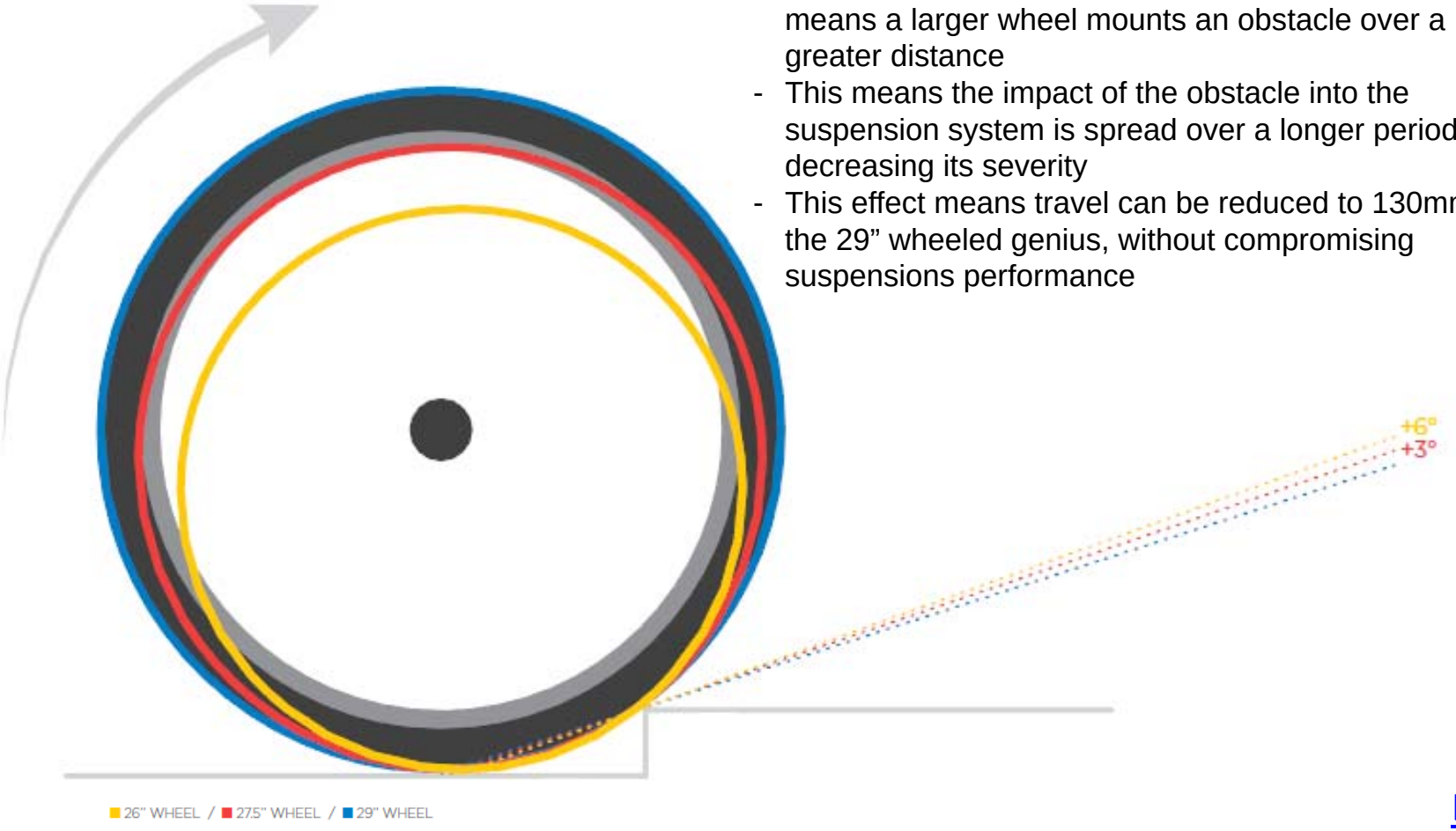
WHEEL SIZE

TESTING

- After comparative testing with 26”, 27.5”, and 29” genius prototypes we have come to the conclusion that the bigger wheels (27.5” and 29”), when used correctly offer advantages we cannot ignore
- Choosing an optimum balance between suspension travel, geometry and wheel size is key



WHEEL SIZE



ATTACK ANGLE

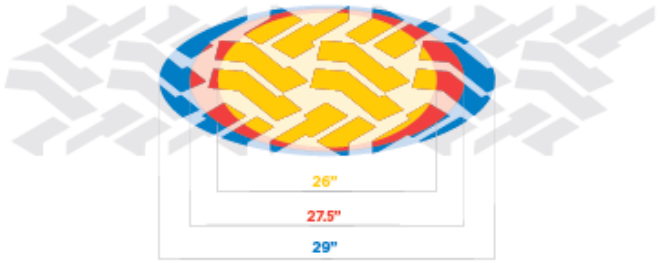
- The decrease in attack angle, with bigger wheel size means a larger wheel mounts an obstacle over a greater distance
- This means the impact of the obstacle into the suspension system is spread over a longer period, decreasing its severity
- This effect means travel can be reduced to 130mm on the 29” wheeled genius, without compromising suspensions performance

Back

WHEEL SIZE

INCREASED TYRE CONTACT AREA

- Less skilled riders will feel more secure with more grip
- More skilled riders will find they can push the bike harder in corners
- Improved braking

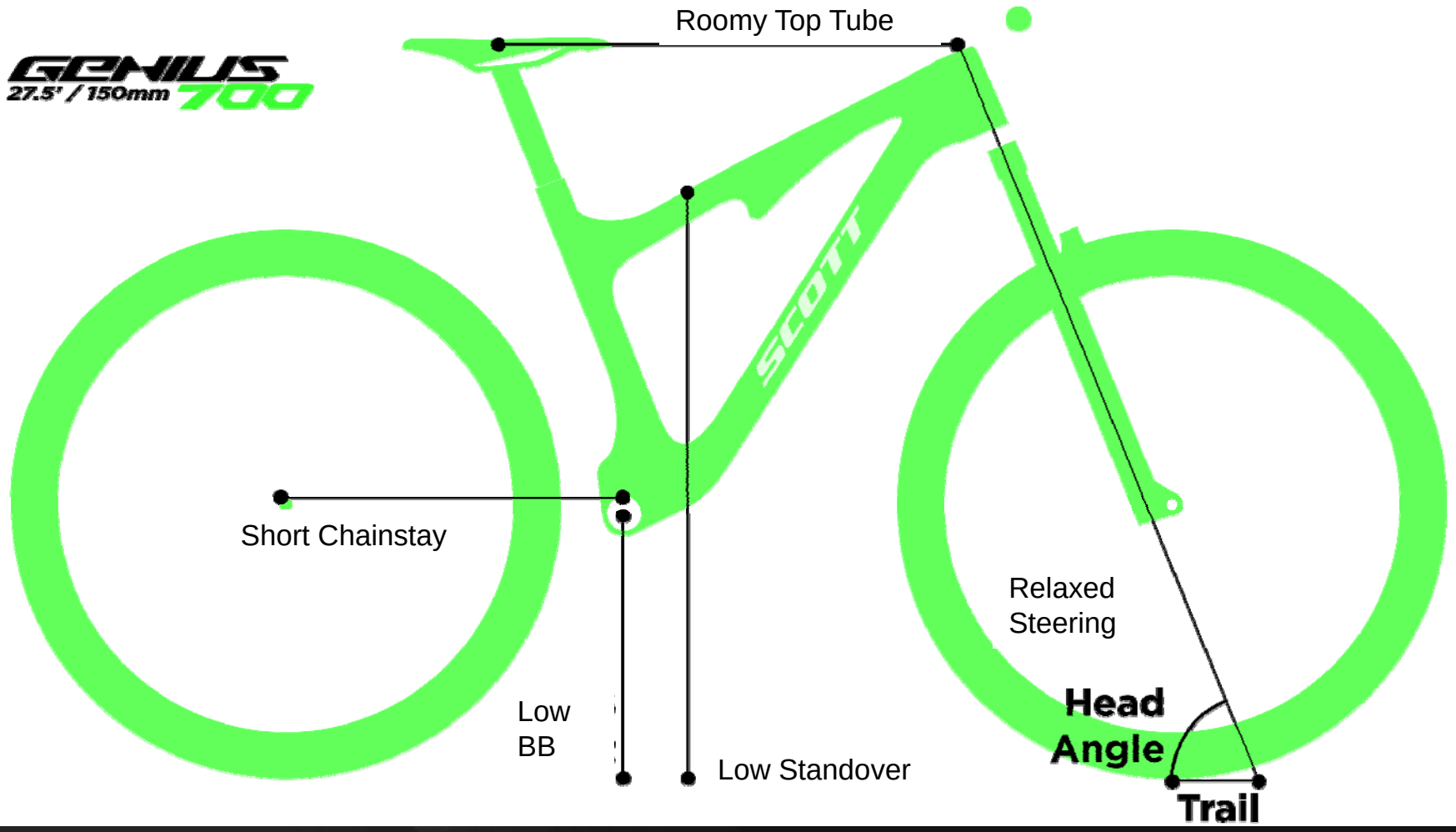


26" WHEEL / 27.5" WHEEL / 29" WHEEL

Back

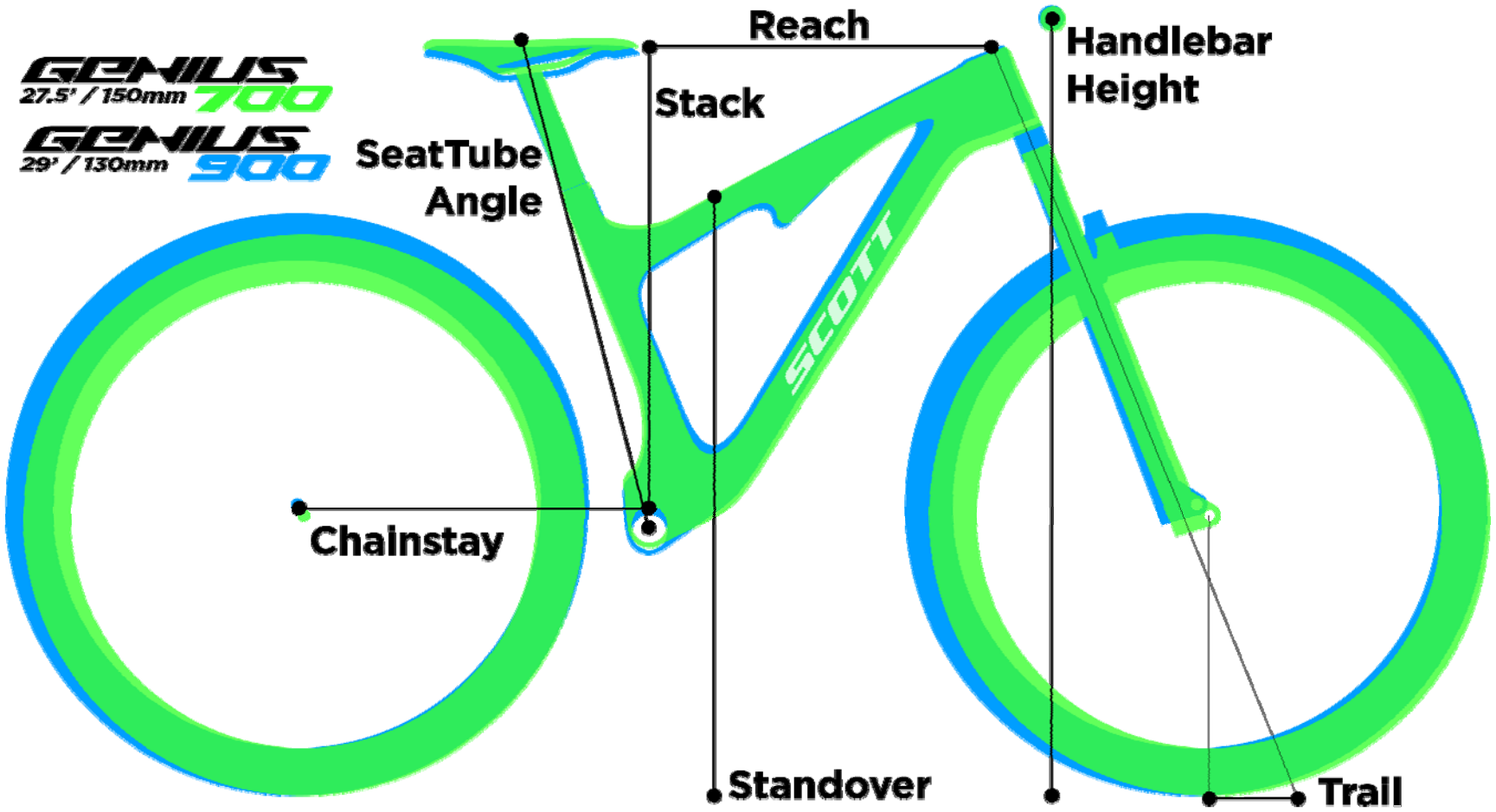
SCOTT GEOMETRY

Scott geometry characteristics include;



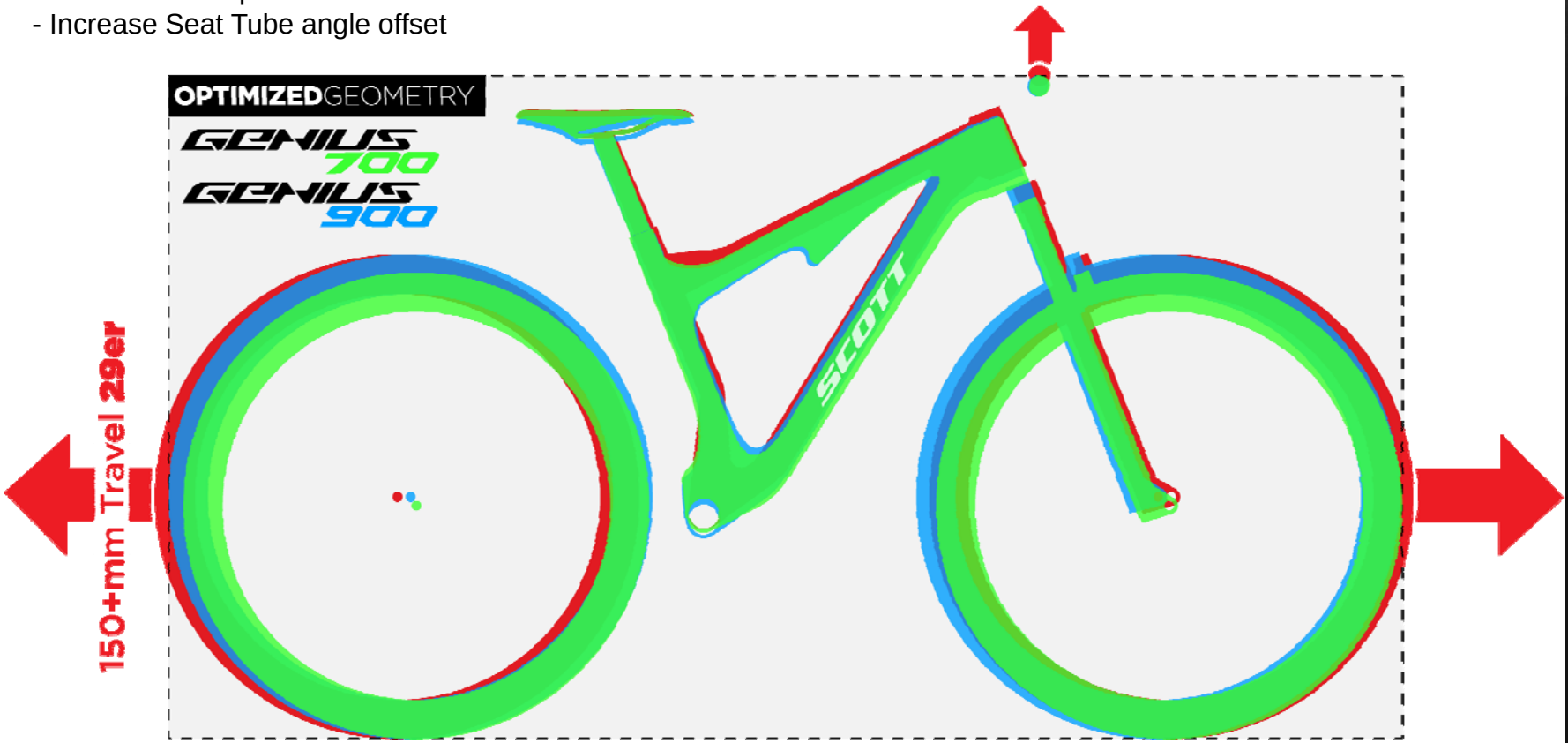
WHEEL SIZE / GEOMETRY BALANCE

Travel and wheel size are chosen to maintain this geometry

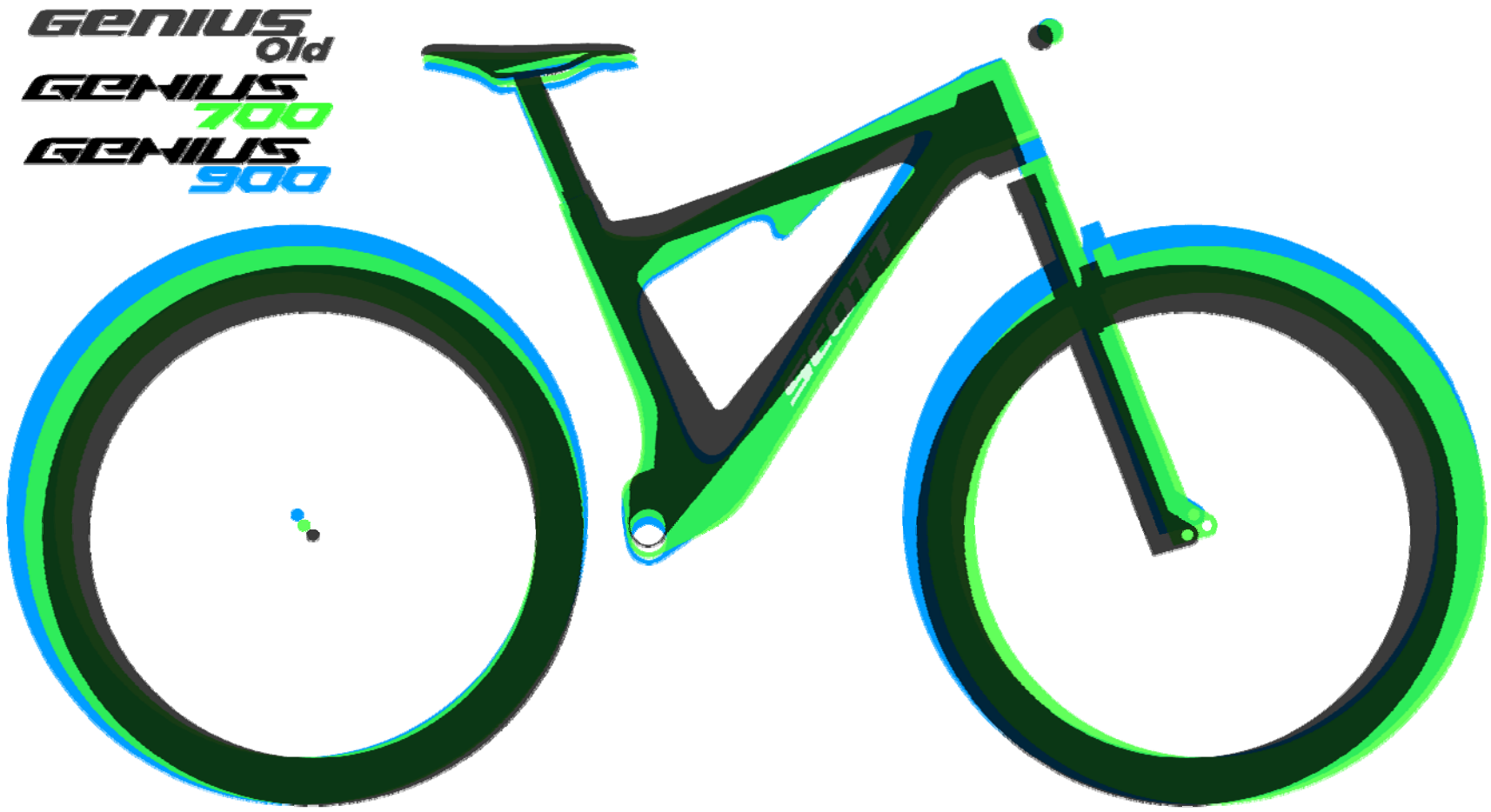


LONG TRAVEL 29er?

A 150mm travel 29er would compromise several important geometry points
- Wheelbase would be similar to Gambler
- Chainstay length would increase 20mm
- Handlebars too high
- Standover compromised
- Increase Seat Tube angle offset

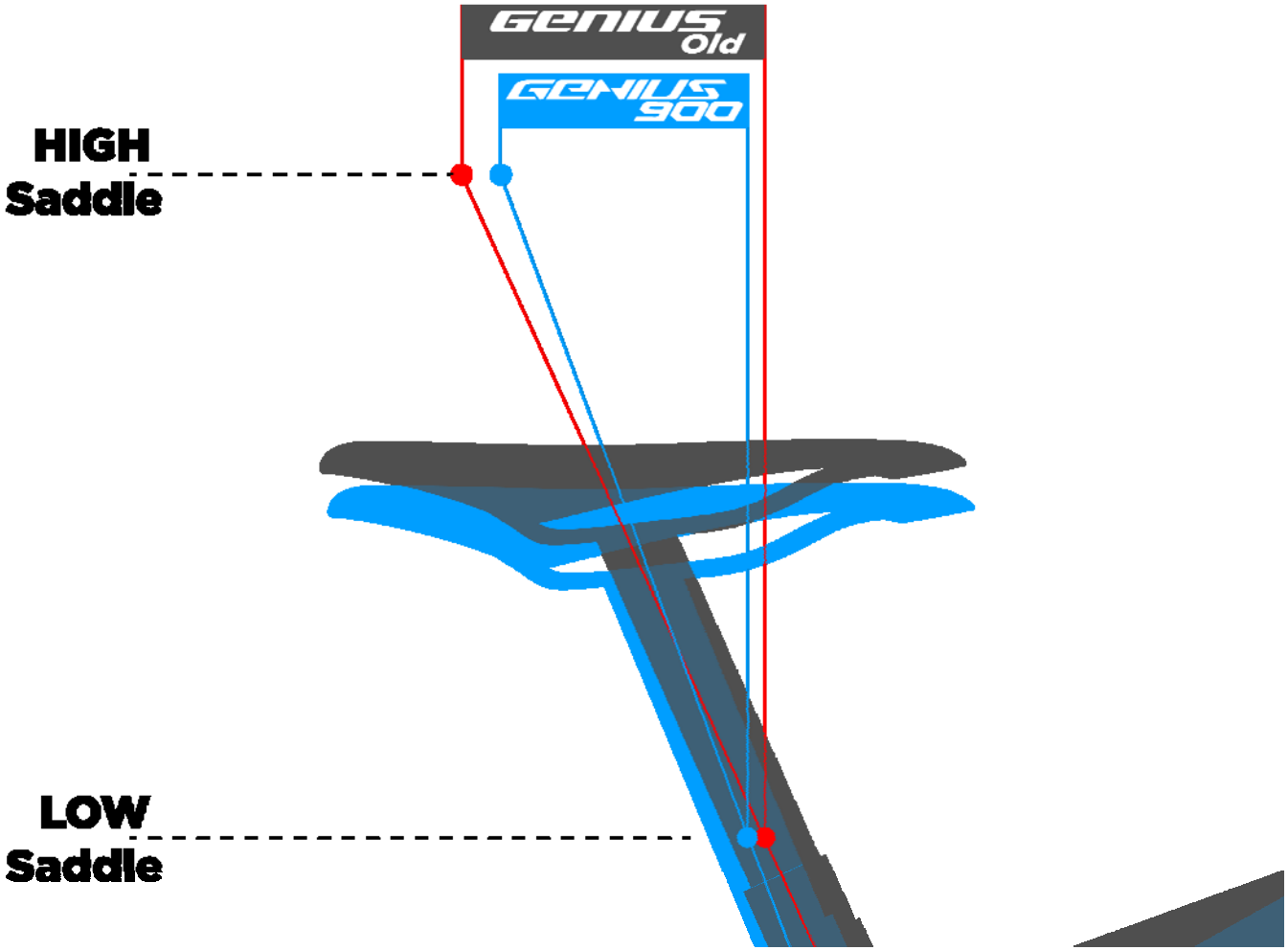


OLD GENIUS COMPARISON



- Standover reduced, new M size is now similar height to S size
- Handlebar height consistent with old Genius
- Rider is lower to the ground with bigger wheels!

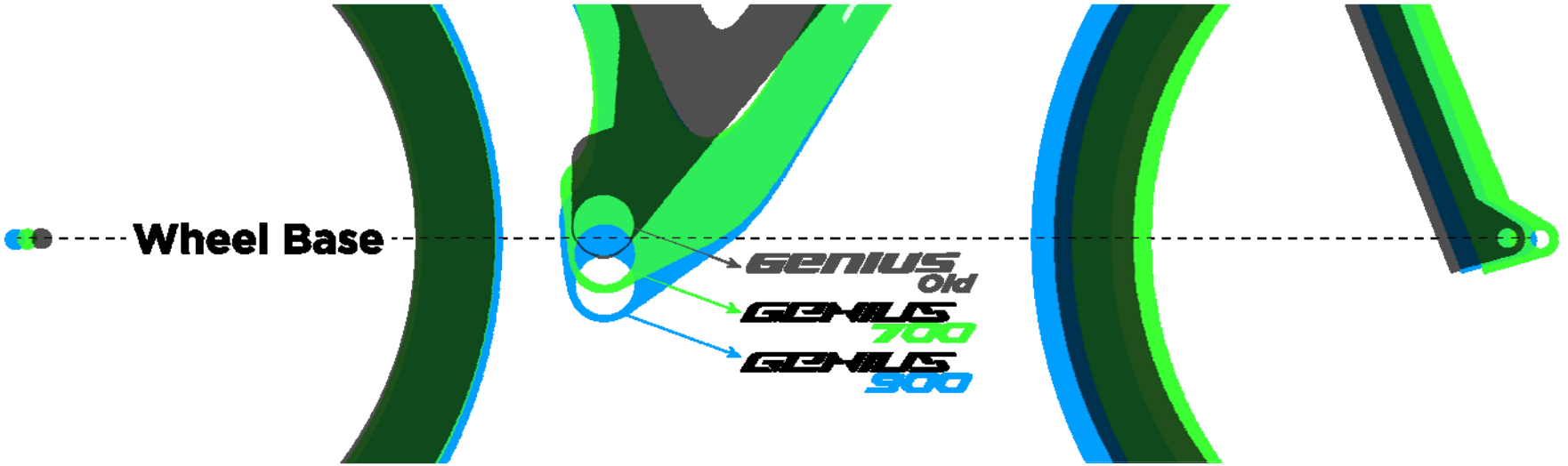
SEAT TUBE OFFSET



- ST offset angle reduced significantly for more consistent geometry when running a high saddle
- Riders who like long seatpost extension are not sat on the back wheel

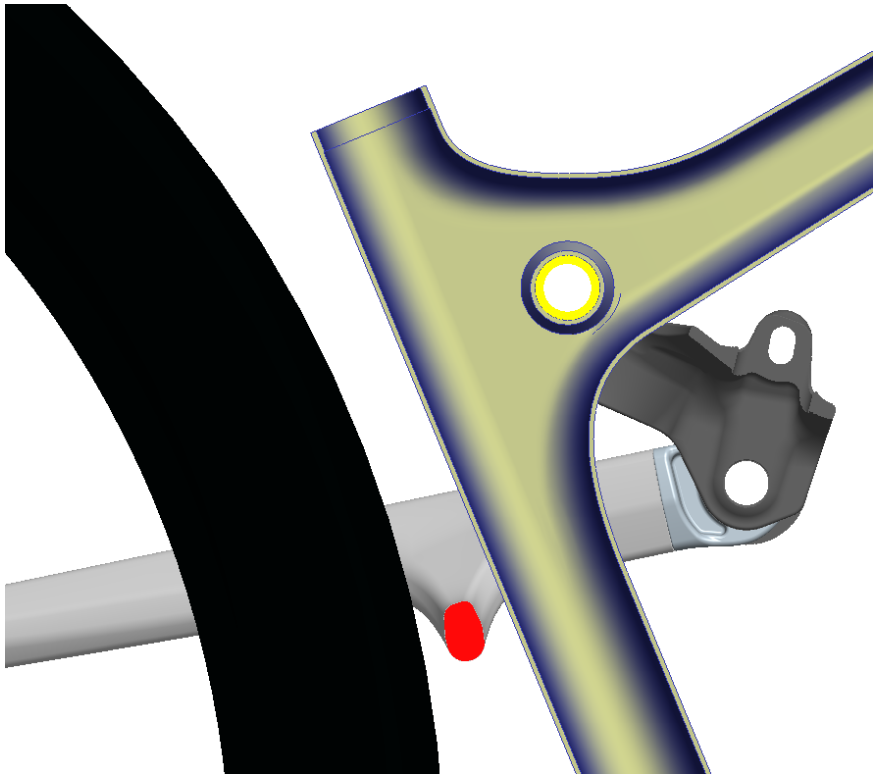
BOTTOM BRACKET OFFSET

- Bigger wheels position the rider lower relative to the wheelbase
- Adds to stable, confident feeling of larger wheels



LONG TRAVEL 29er?

Clearance Challenges



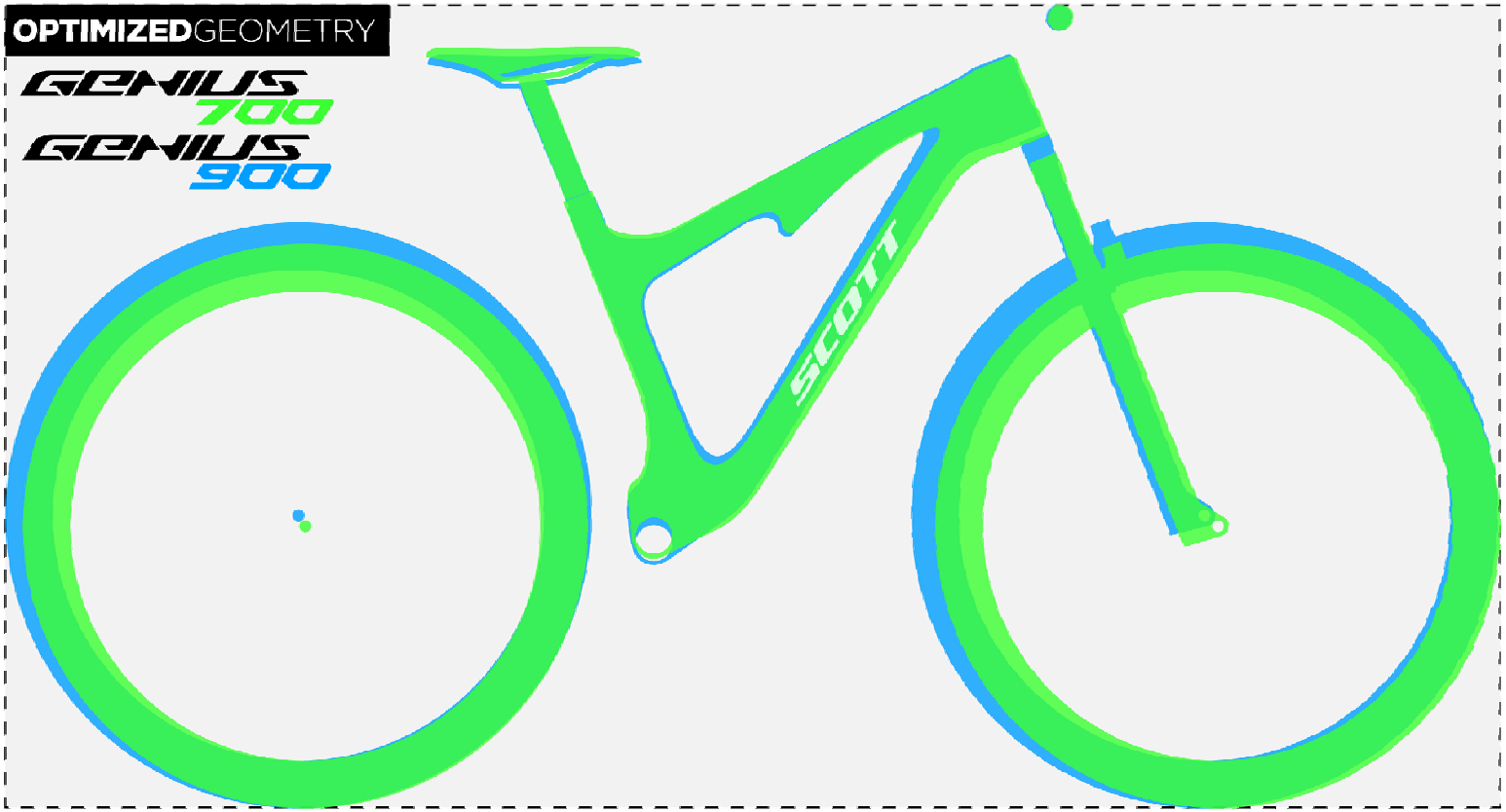
GEOMETRY CHIP

Seat Tube angle steepens
+0.4°

Head Tube angle steepens
+0.4°

Bottom Bracket
Height +6mm

700 vs 900?



- Both bikes are designed to perform equally well as Trail bikes, rider preference is key
- 900 better for longer distance technical rides, larger riders, less confident riders
- 700 better for riders who are more dynamic on the bike, shifting body weight, flicking the bike through corners, also interesting for smaller riders

WHEEL SIZE COMPARISON

	Genius Old	Genius 700	Genius 900
	26”	27.5” (650B)	29”
ETRTO	559mm	584mm	622mm
Outside Diameter (Schwalbe Nobby Nic 2.35)	690mm	713mm (+23mm)	753mm (+63mm)
Wheel Weight	2450g	2590g (+5%)	2880g (+11%)

Wheel Size Comparison

SCOTT GEOMETRY

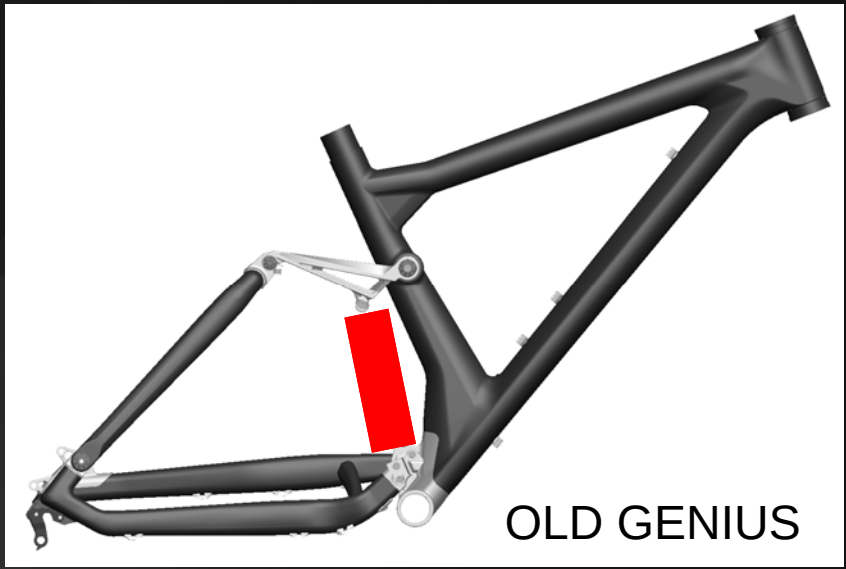
GENIUS 700		S	M	L	XL
Head Angle	°		67.7 / 68.2		
Head Tube	mm	100	110	120	135
Horizontal Top Tube	mm	570	600	625	650
Seat Angle	°		73.8 / 74.3		
Seat Tube c-t	mm	415	440	475	510
Chainstay	mm		440		
BB Offset	mm		-10 / -4		
BB Height	mm		346 / 352		
Standover	mm	776	777	809	815
Wheelbase	mm	1124	1155	1181	1208
Reach	mm	399 / 404	427 / 431	449 / 454	470 / 475
Stack	mm	590 / 587	599 / 596	609 / 605	523 / 619
Stem	mm	60	70	80	90
					Low / High

SCOTT GEOMETRY

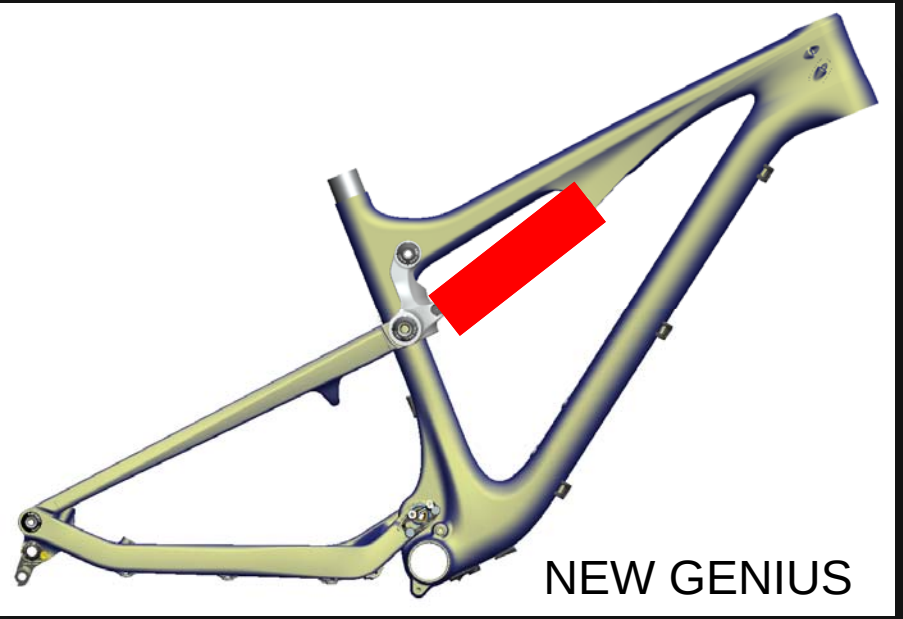
GENIUS 900		S	M	L	XL
Head Angle	°		69.0 / 69.5		
Head Tube	mm	100	100	110	120
Horizontal Top Tube	mm	570	600	625	650
Seat Angle	°		74.0 / 74.5		
Seat Tube c-t	mm	415	440	475	510
Chainstay	mm		450		
BB Offset	mm		-35 / -30		
BB Height	mm		335 / 341		
Standover	mm	766	772	801	808
Wheelbase	mm	1111	1141	1167	1193
Reach	mm	395 / 400	425 / 430	448 / 453	470 / 475
Stack	mm	609 / 606	609 / 606	618 / 615	628 / 624
Stem	mm	60	70	80	90
					Low / High

DESIGN & STRUCTURE

PUSH SHOCK DESIGN



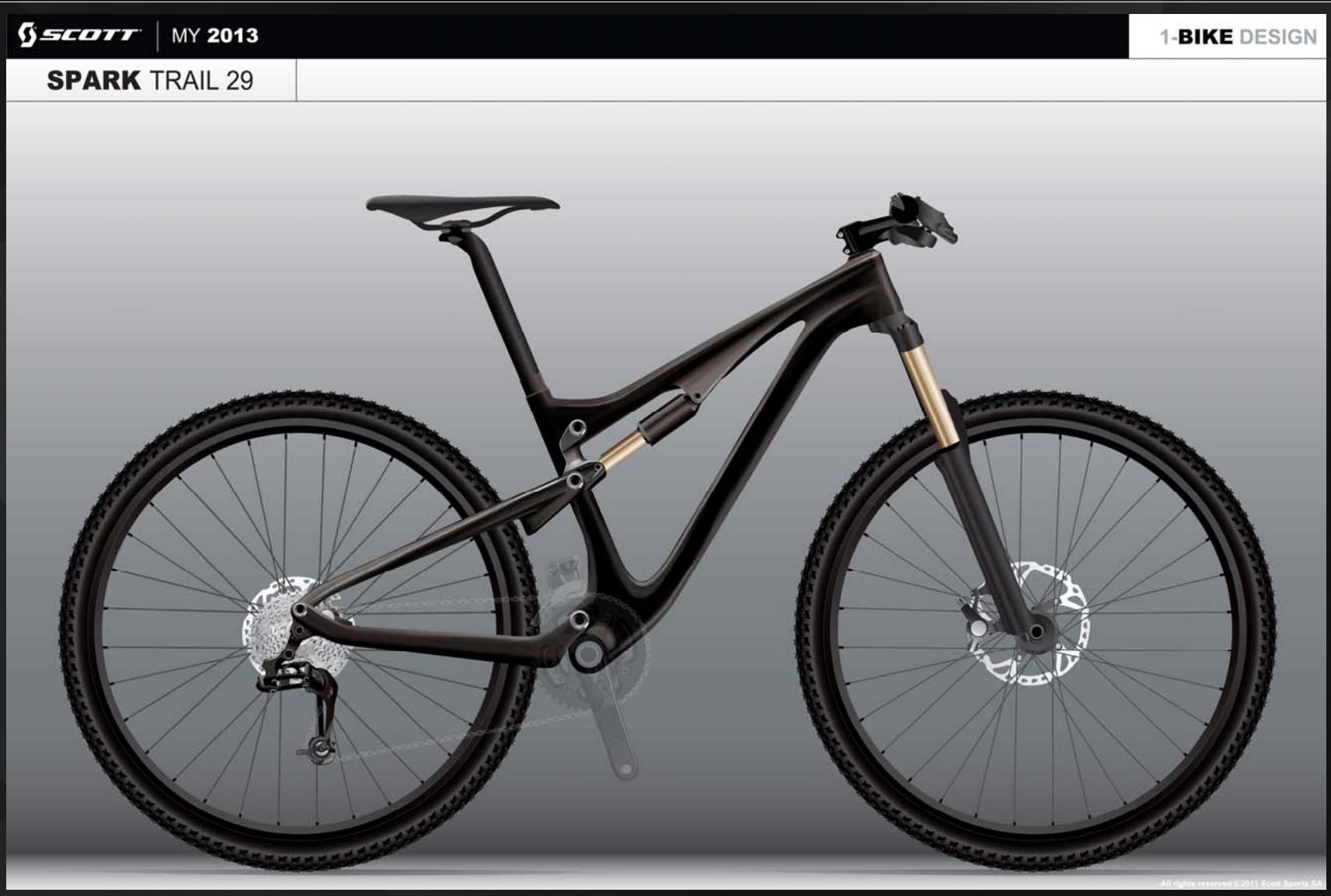
- More advanced damping control
- Around 200g weight saving on shock
- Standard shock dimensions
- Protected shock
- Easier sag setup check
- Single valve



CONCEPTS

- Important to differentiate from Spark whilst keeping family line
- Bend in Down Tube increases bottle to shock clearance

CONCEPTS

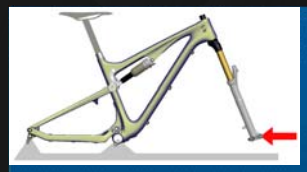


IMP

Front triangle molded as a single piece

TAPERED HEAD TUBE

TAPERED HEAD TUBE



OLD GENIUS

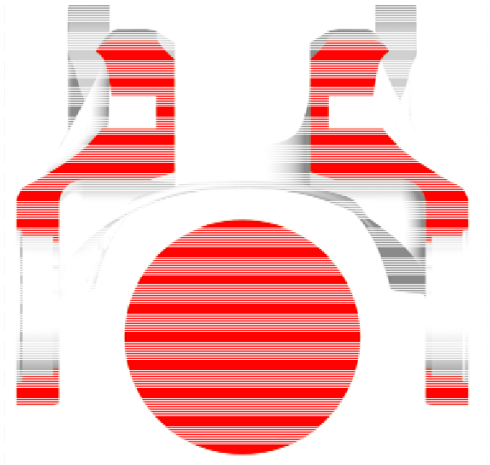
GENIUS 700

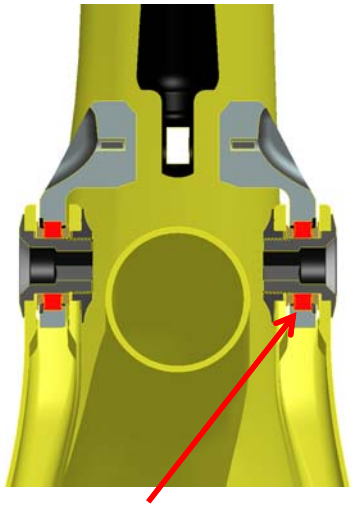
LINKAGE

- Focus on maximizing stiffness
- Connection between front and rear triangles is key
- Greater stiffness requirements compared to Spark due to travel increase

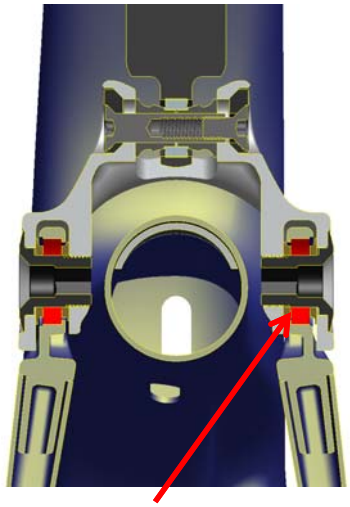
LINKAGE

Moving bearings from linkage into Seatstay allows the linkage to follow the Seat Tube more closely, for a stiffer connection



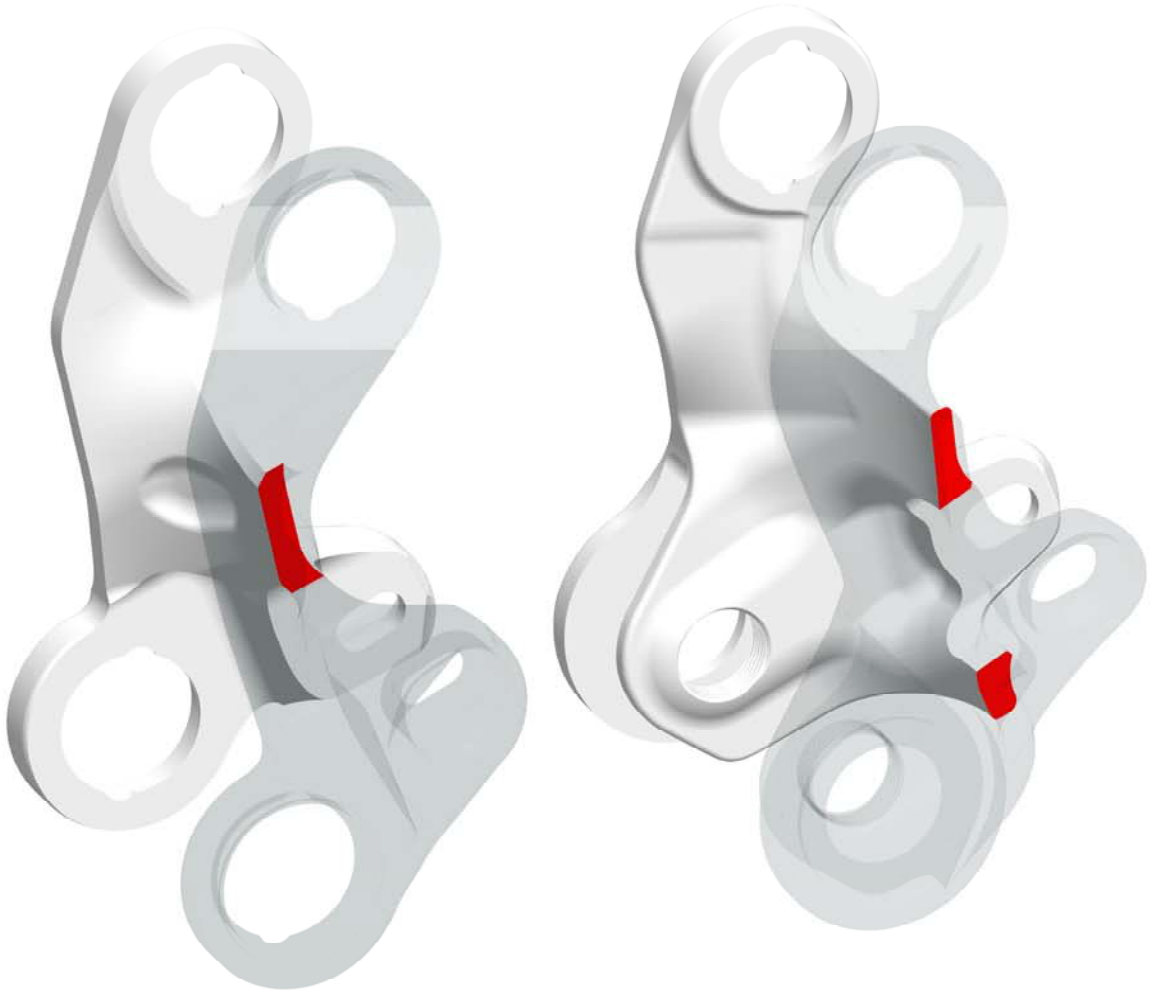


Spark - Bearings in Linkage



Genius - Bearings in Seatstay

LINKAGE



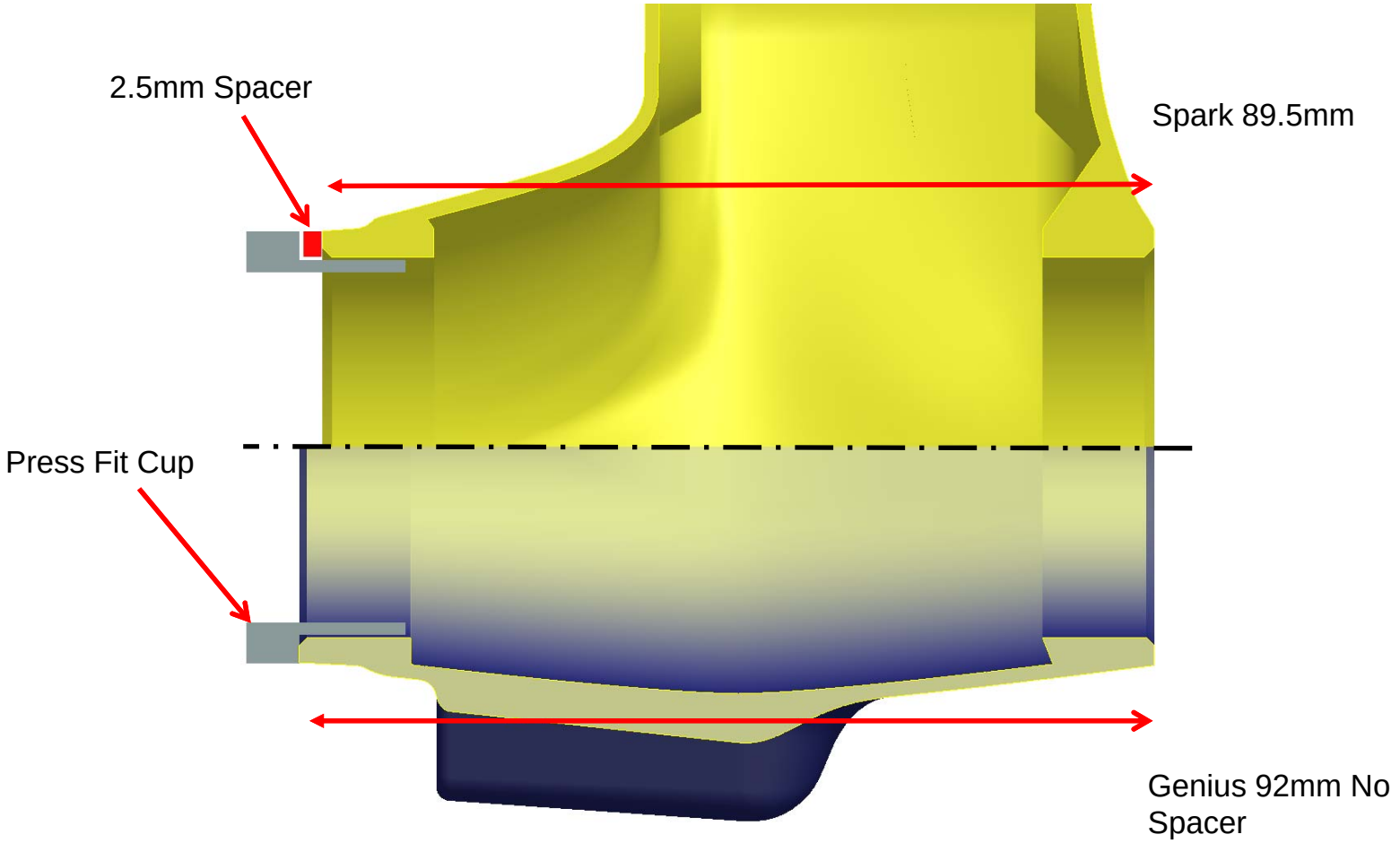
- Additional bridge on Genius linkage adds stiffness

BOTTOM BRACKET

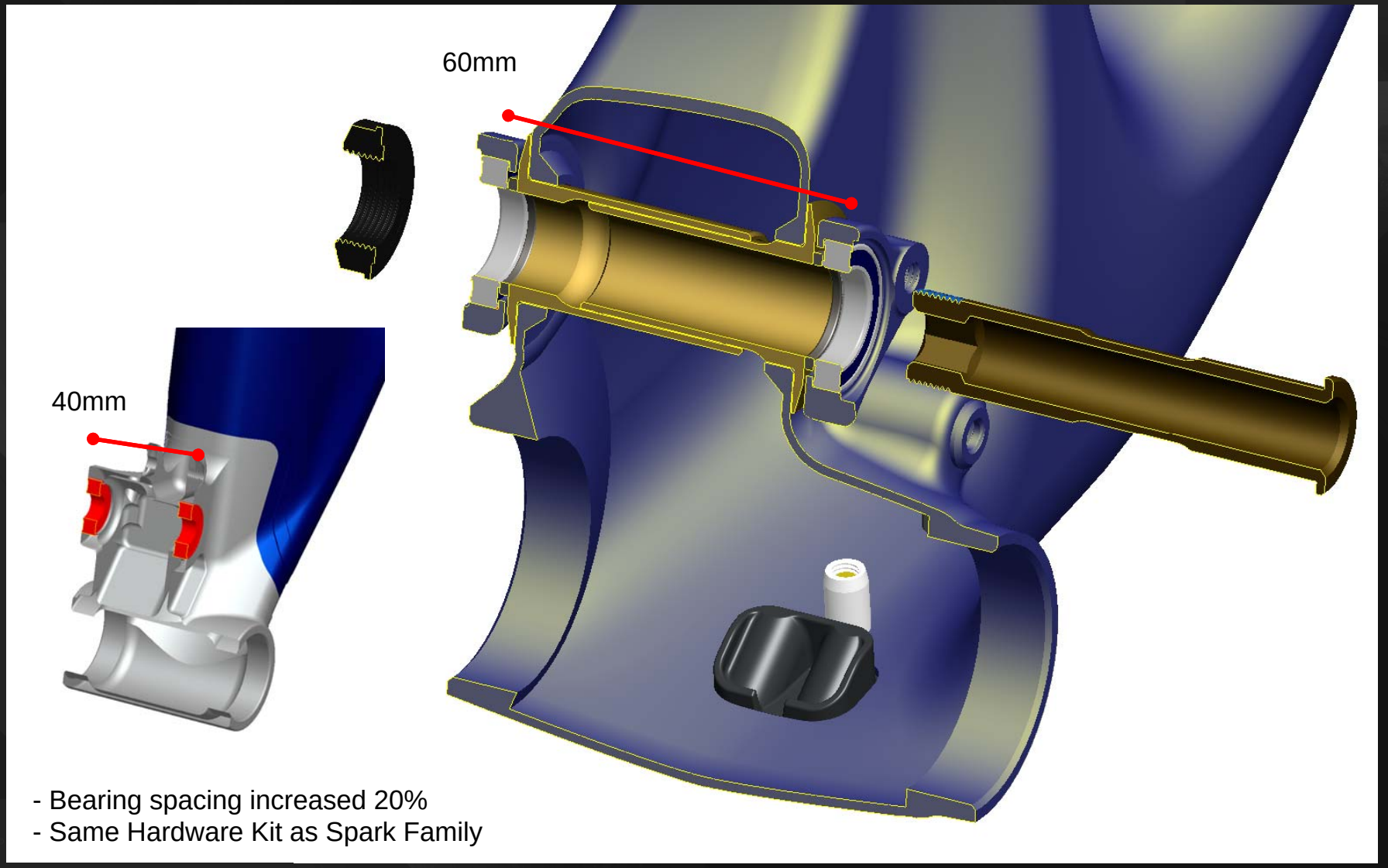
- PF92 BB standard
- Frame structure enlarged compared to Spark for harder Trail riding

BOTTOM BRACKET

Genius bottom bracket shell is full 92mm width, eliminating the drive-side 2.5mm spacer for better bearing support



OVERSIZED HARDWARE

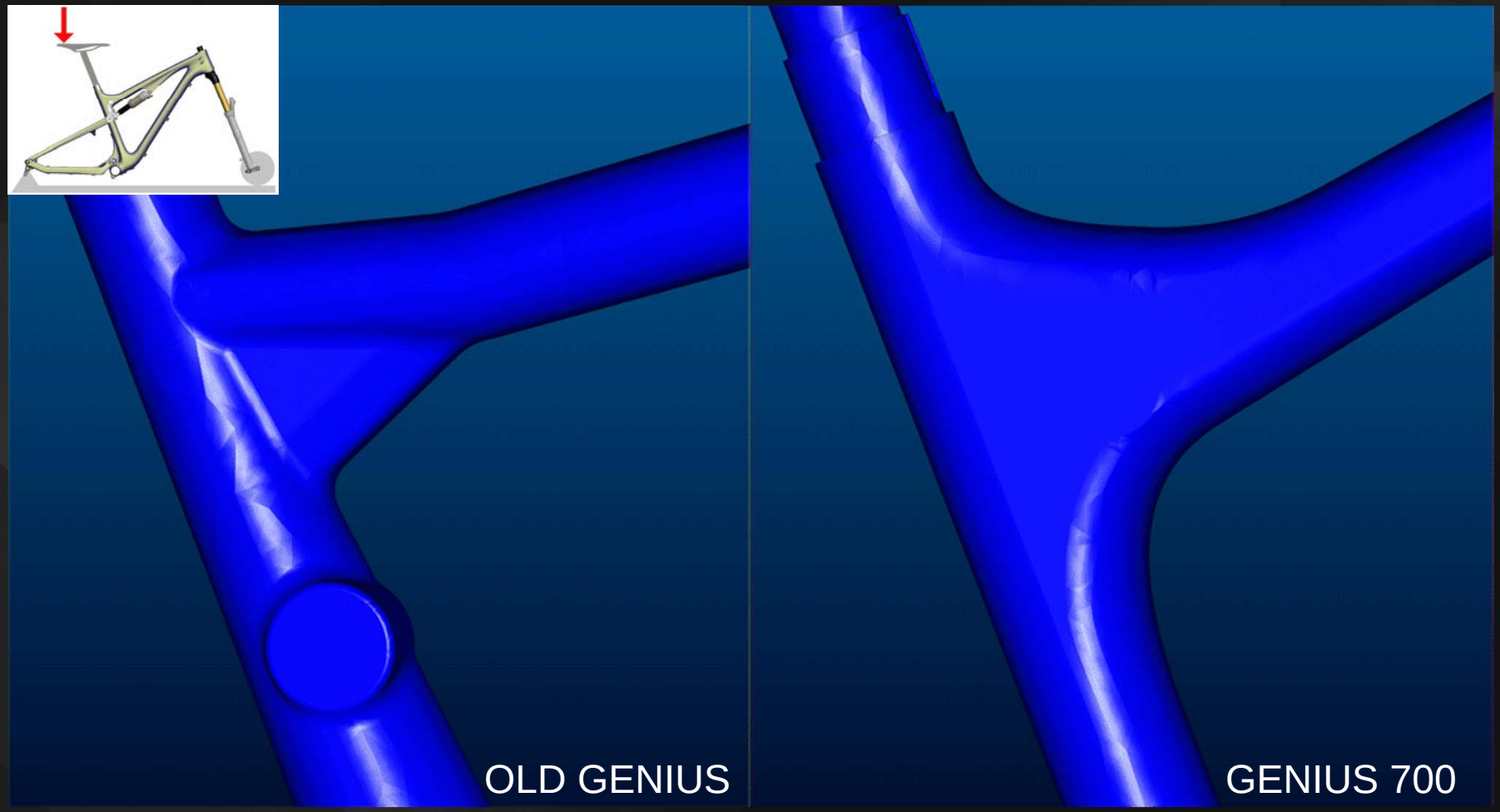


- Bearing spacing increased 20%
- Same Hardware Kit as Spark Family

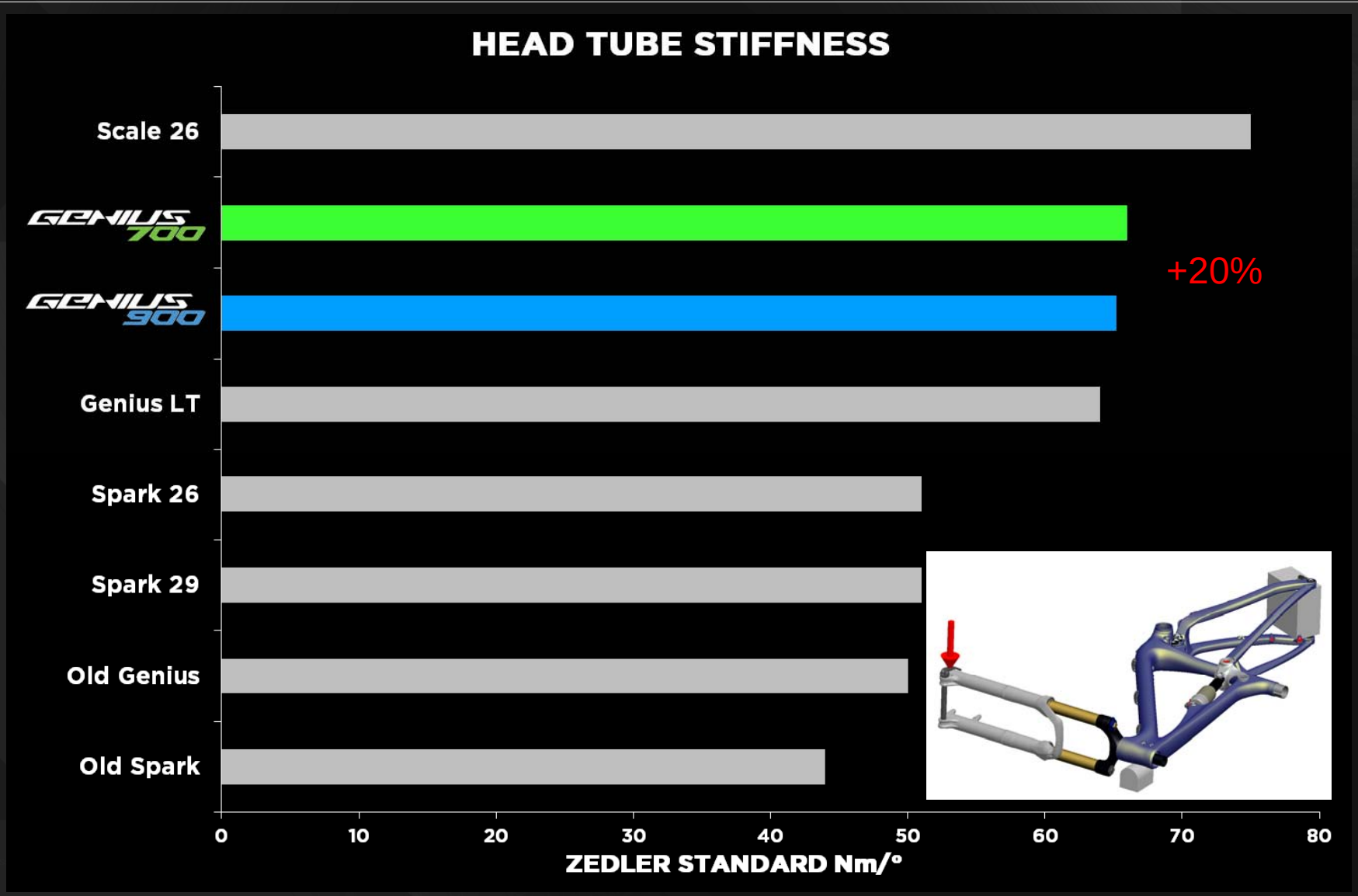
SEAT TUBE

- Change to standard Ø31.6mm seatpost
- Smooth, efficent shape at Seat Tube junction provides stiff base for linkage and allows reduced thickness compared to old Genius

SEAT TUBE COMPRESSION

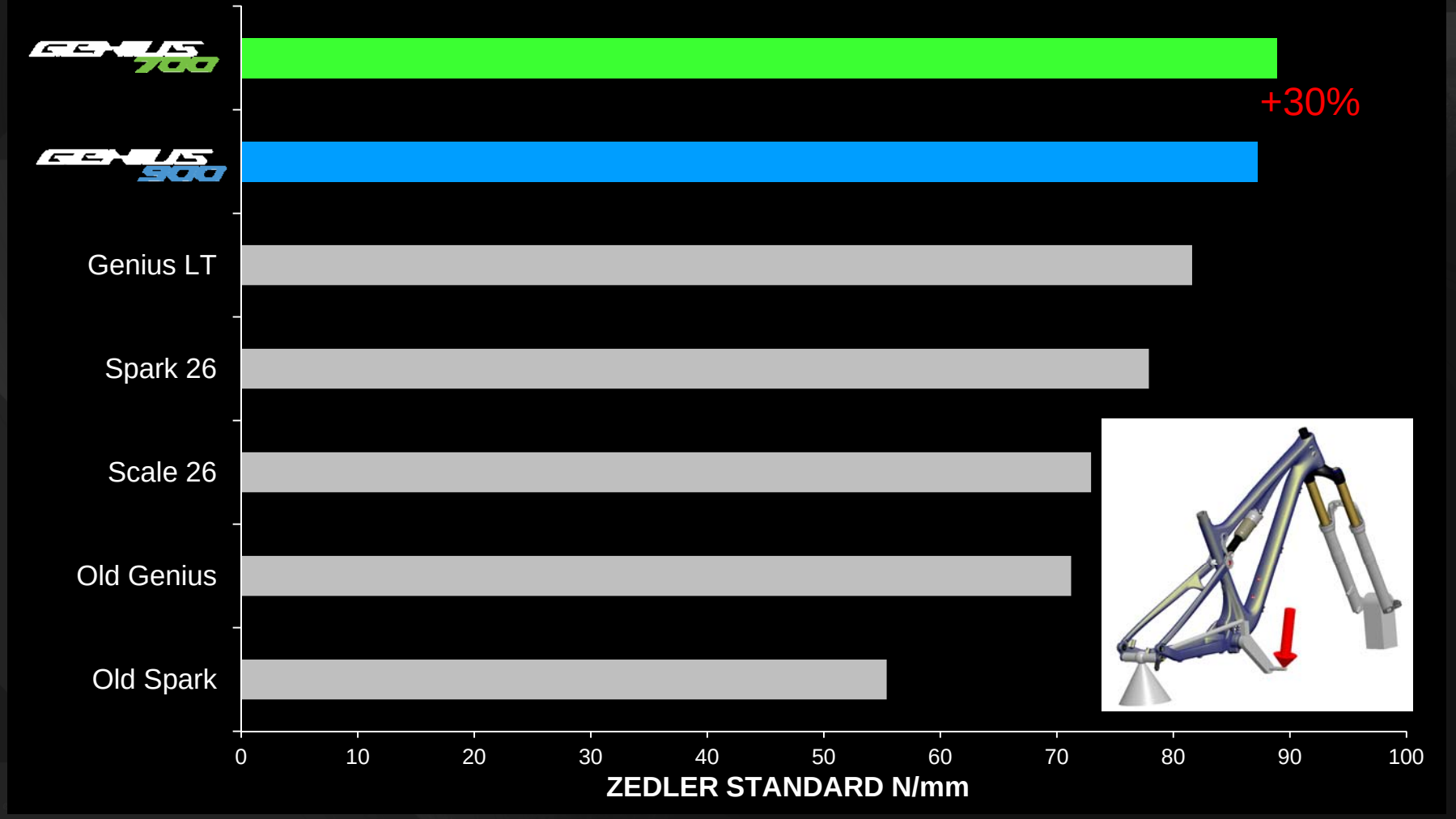


STIFFNESS


HEAD TUBE STIFFNESS
Scale 26
GENIUS 700
GENIUS 900
Genius LT
Spark 26
Spark 29
Old Genius
Old Spark
+20%
0
10
20
30
40
50
60
70
80
ZEDLER STANDARD Nm/°

STIFFNESS

BOTTOM BRACKET STIFFNESS



IDS SL

- Established Scott standard
- 142x12, 135x10, and 135x5 options

DIRECT POST MOUNT 180

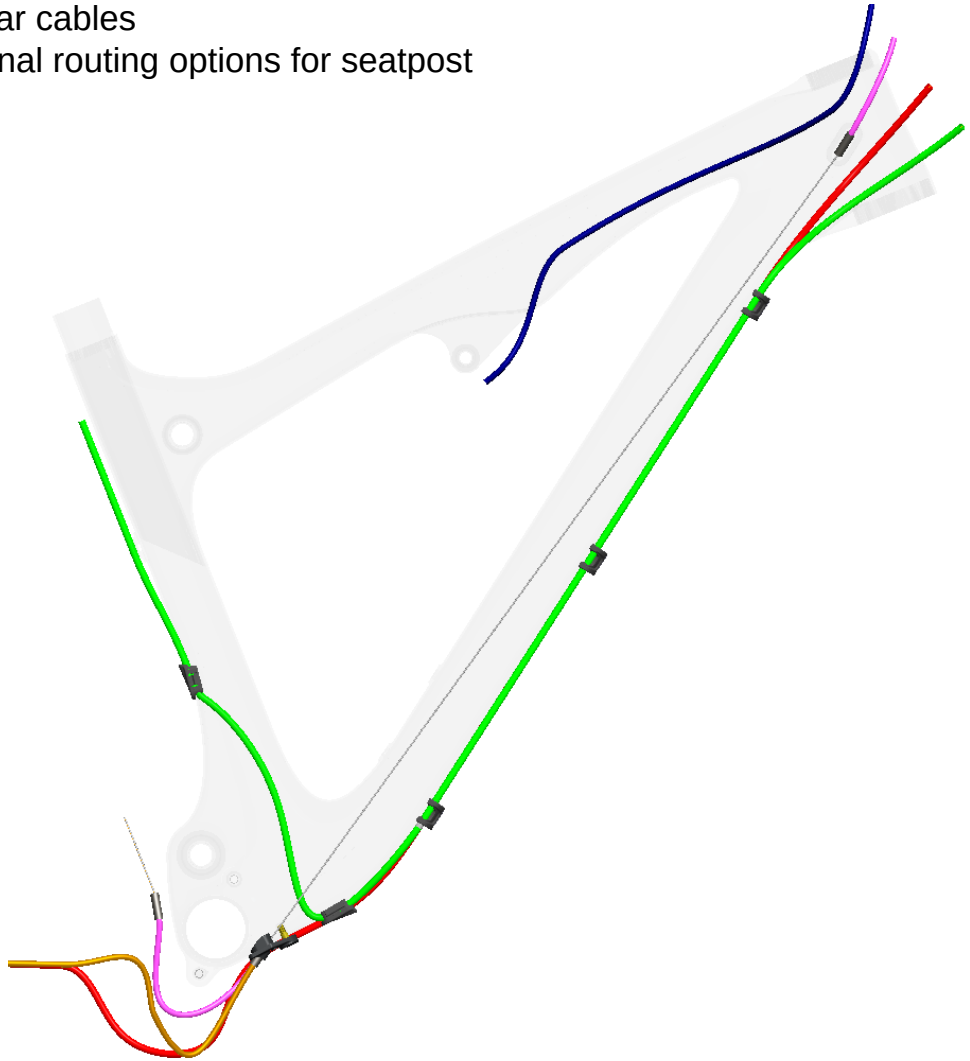
- Caliper mounts directly for 180mm disk
- Can run 200mm with +20 adaptor

CHAINBLOCKER / ISCG05

- All bikes supplied with chain blocker
- Compatible with 2x10 and 3x10
- Aftermarket ISCG05 adaptor available
- ISCG05 Adaptor included with framekits

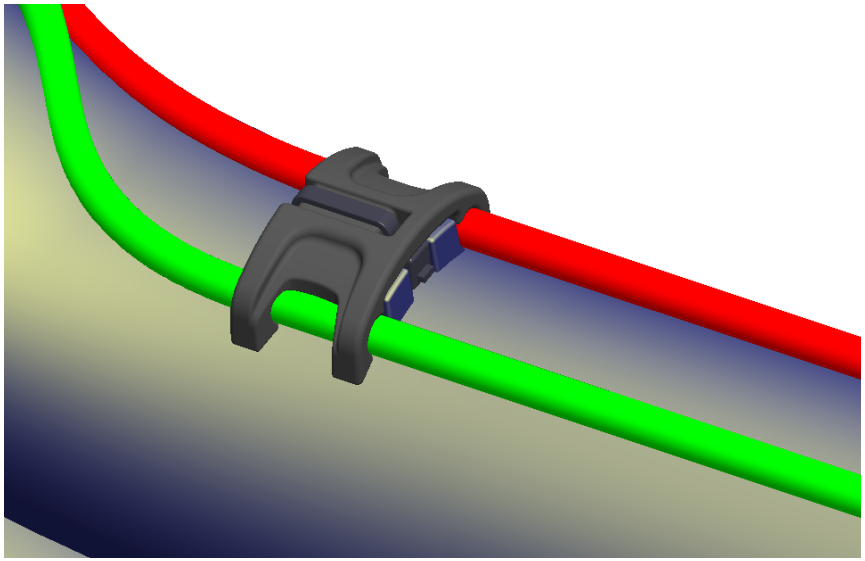
CABLE ROUTING

- Internal Routing for gear cables
- Internal and semi-internal routing options for seatpost

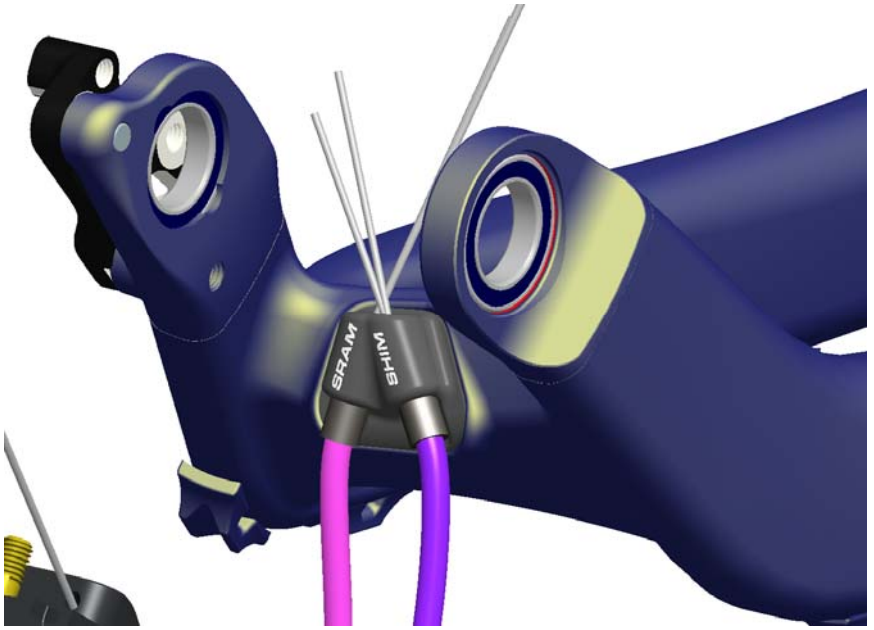


SCR cablerouting

CABLE ROUTING



- New zip-tie guides mean no drilling or metal parts under DT



- Front Derailleur stop has Sram/Shimano option

SCR cablerouting

ALLOY FRAME

- Alloy frame around 450g heavier than carbon
- Press fit BB92
- Cable Routing for internal/ external dropper post
- ISCG05 mount direct, no need for adaptor

GENIUS

SPECIFICATION

	700 SL / 900 SL	710 / 910	720 / 920	730 / CONTESSA 700 / 930	740 / 940
Mainframe	HMX Carbon	HMF Carbon	HMF Carbon	Alloy	Alloy
Rear Triangle	HMX Carbon	Alloy	Alloy	Alloy	Alloy
Twinloc System	LTD	LTD	LTD	LTD	LRD
Rear Shock	DT Nude 2	DT Nude 2	DT Nude 2	DT Nude 2	DT M3
Chainset	2x10	3x10	3x10	3x10	3x10
Rear Axle	142 x 12	142 x 12	135	142 x 12	135

GENIUS 2013


GENIUS
- 20-30% Stiffer
- Bigger wheels, Big travel
- 3 Twinloc modes for all
- Options
- 150g Lighter, still category leader

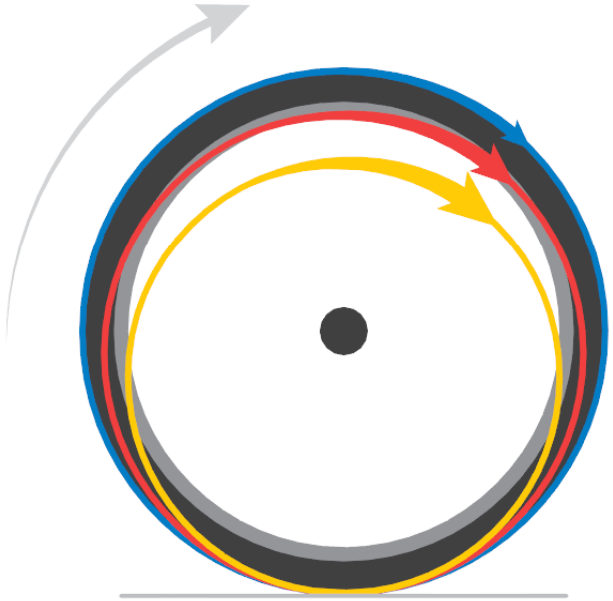
WHEEL SIZE

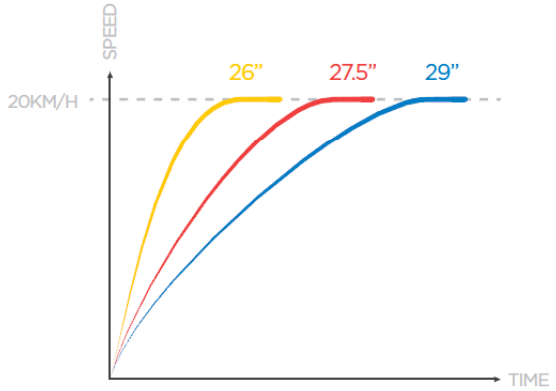
	GENIUS Old	GENIUS 700	GENIUS 900
	26”	27.5” (650B)	29”
ETRTO	559mm/22”	584mm/23”	622mm/24.5”
Outside Diameter (Schwalbe Nobby Nic 2.35)	690mm/27.2”	713mm/28.1”	753mm/29.6”
Wheel Weight	2450g	2590g +5%	2880g +11%

WHEEL SIZE

01.**ACCELERATION**

Diameter and rotating mass directly influence the acceleration of a wheel. The 29" wheel has both the largest diameter and the most rotating mass, and therefore takes the most energy and time to accelerate. The 26" wheel accelerates fastest, and the 27.5" wheel falls in between.





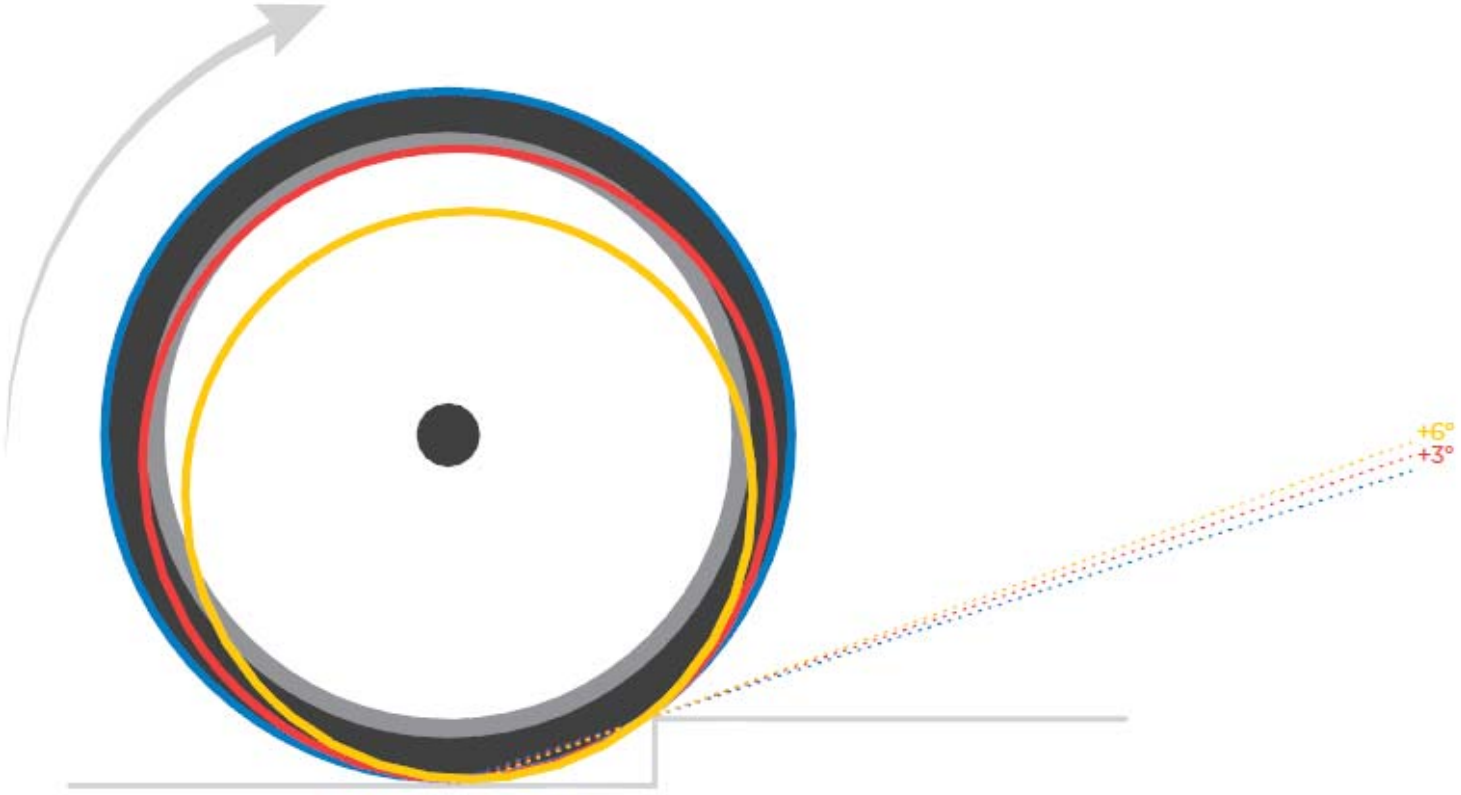
26" WHEEL / 27.5" WHEEL / 29" WHEEL

Back

WHEEL SIZE

02.**ANGLE OF ATTACK**

Increased wheel size decreases the angle of attack.
That means bigger wheels make obstacles seem smaller.



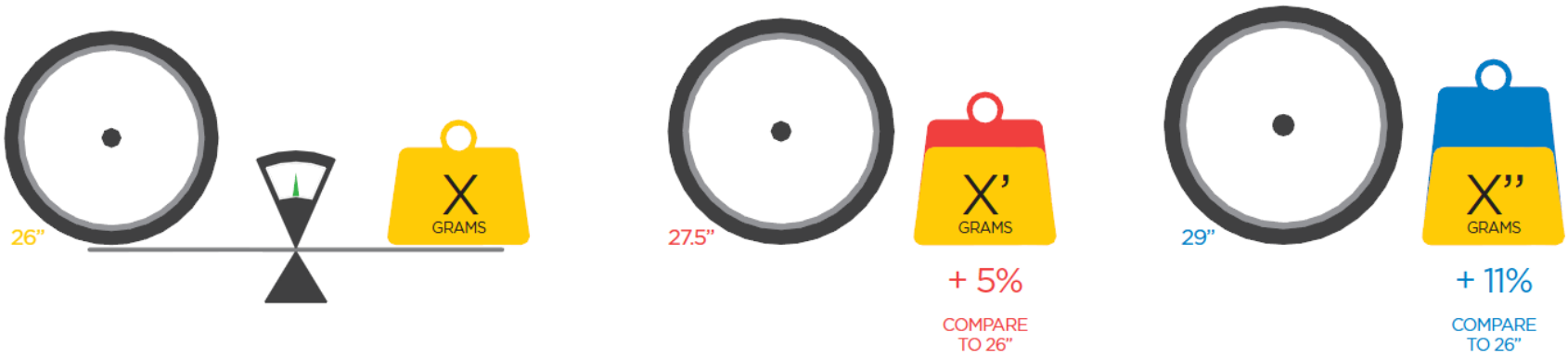
■ 26" WHEEL / ■ 27.5" WHEEL / ■ 29" WHEEL

Back

WHEEL SIZE

03.**WEIGHT**

The overall weight of the 27.5" wheel is only 5% (+ 140g) more than a 26" wheel, compared to 11% (+ 430g) more weight for the 29" wheel. Calculation is made on the same type of wheels set front and rear, tires and inner tubes. Based weight for 26" is 2450g



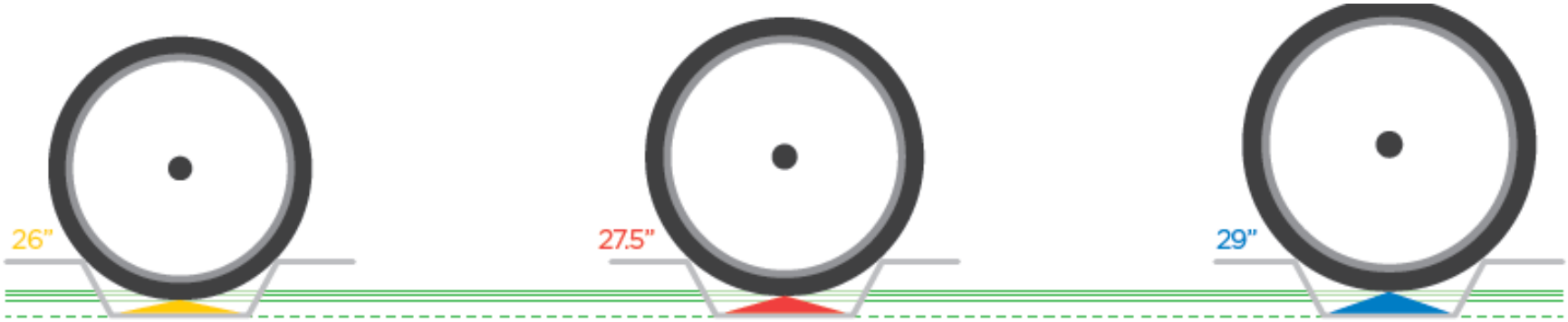
■ 26" WHEEL / ■ 27.5" WHEEL / ■ 29" WHEEL

Back

SCOTT GEOMETRY – WHEEL SIZE

04.**IMPROVED ROLL-OVER**

A larger wheel rolls over objects with greater ease due its increased diameter. The wheel literally spans a greater distance without being impeded. So you stay rolling over rough stuff and maintain your speed through the corners.



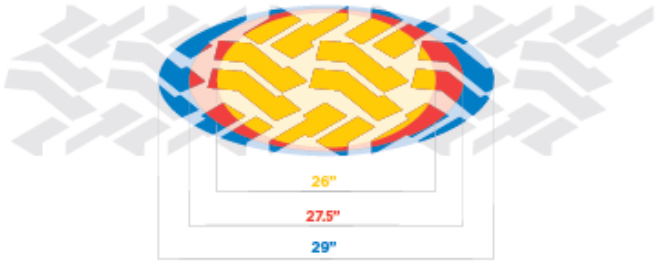
■ 26" WHEEL / ■ 27.5" WHEEL / ■ 29" WHEEL

Back

SCOTT GEOMETRY – WHEEL SIZE

05.**MORE TRACTION**

The larger contact patch of a bigger wheel better connects the rider to the trail and provides improved traction over smaller wheels. This means more control and better braking.



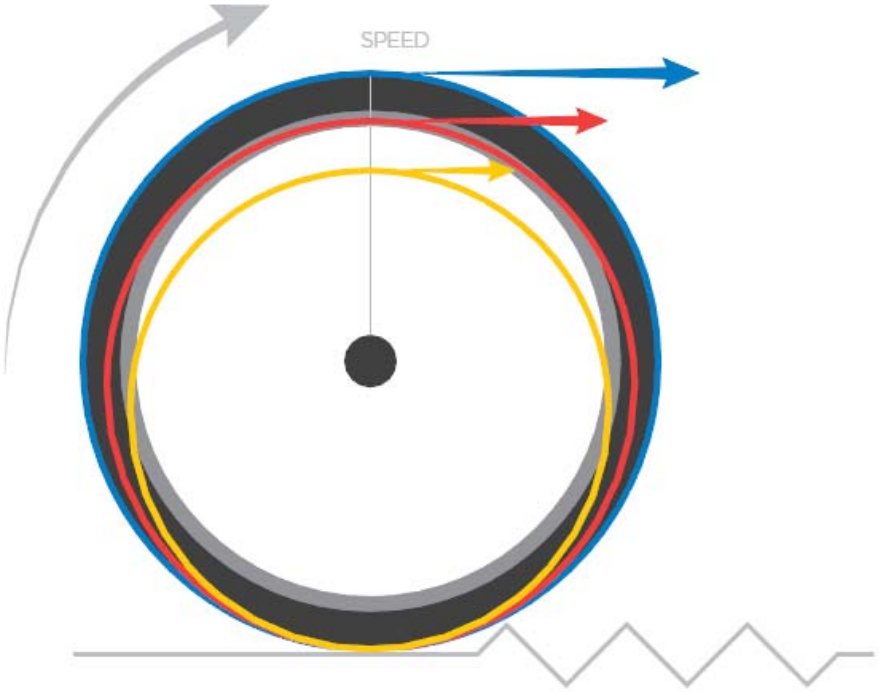
26" WHEEL / 27.5" WHEEL / 29" WHEEL

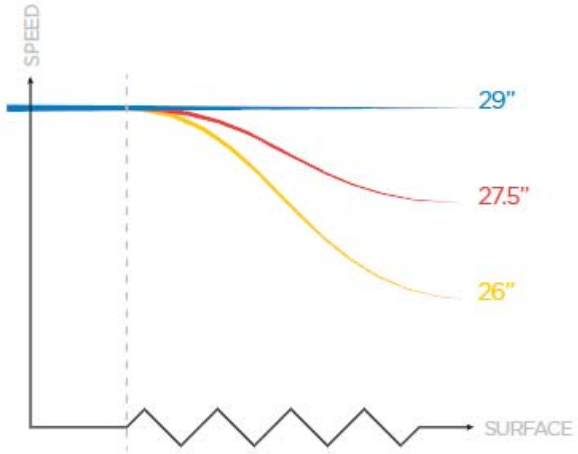
Back

WHEEL SIZE

06.**MOMENTUM**

Larger wheels carry momentum better than smaller wheels. This means you continue to roll through technical sections without being hung up on objects and slowed down.





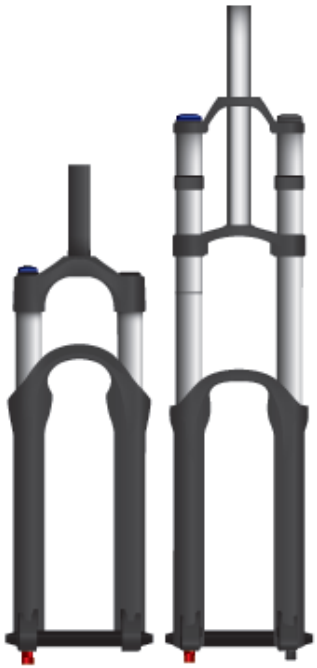
26" WHEEL / 27.5" WHEEL / 29" WHEEL

Back

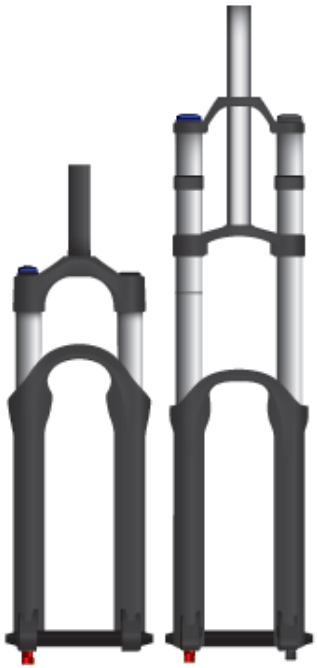
SCOTT GEOMETRY – WHEEL SIZE

07.**TRAVEL RANGE**

There are currently more and longer suspension travel options available for 26" and 27.5" wheels than for 29" wheels for which options are still limited to designs offering less than 130mm of travel in order to keep the kotpite height at the right geometry.



26"
80MM → 200MM



27.5"
80MM → 200MM

29"
80MM → 130MM

■ 26" WHEEL / ■ 27.5" WHEEL / ■ 29" WHEEL

Back