



2020

LEVO_{SL}

REAR SUSPENSION - SCHEMATIC

CARBON FRAME





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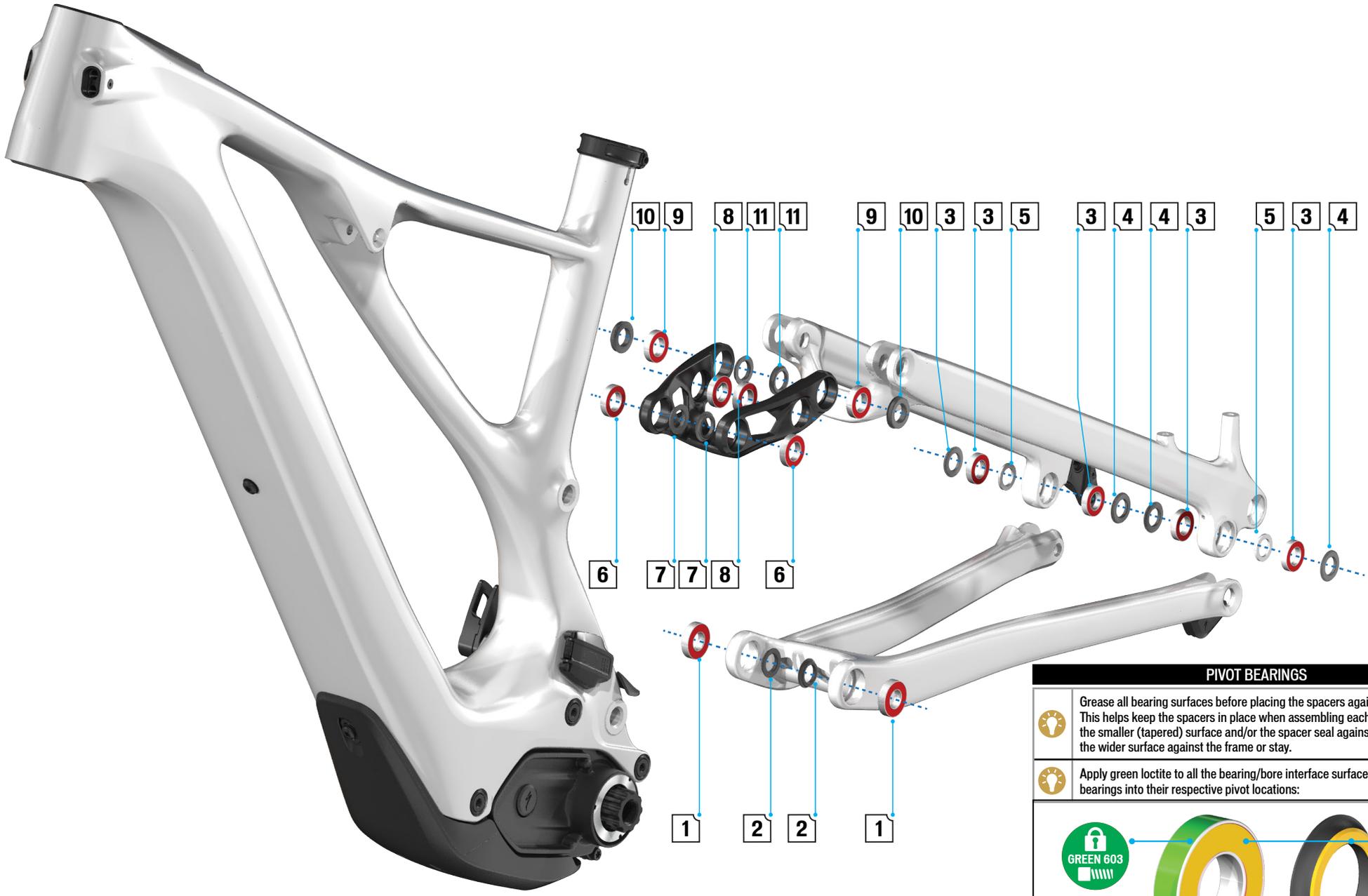
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SPECIALIZED BICYCLE COMPONENTS

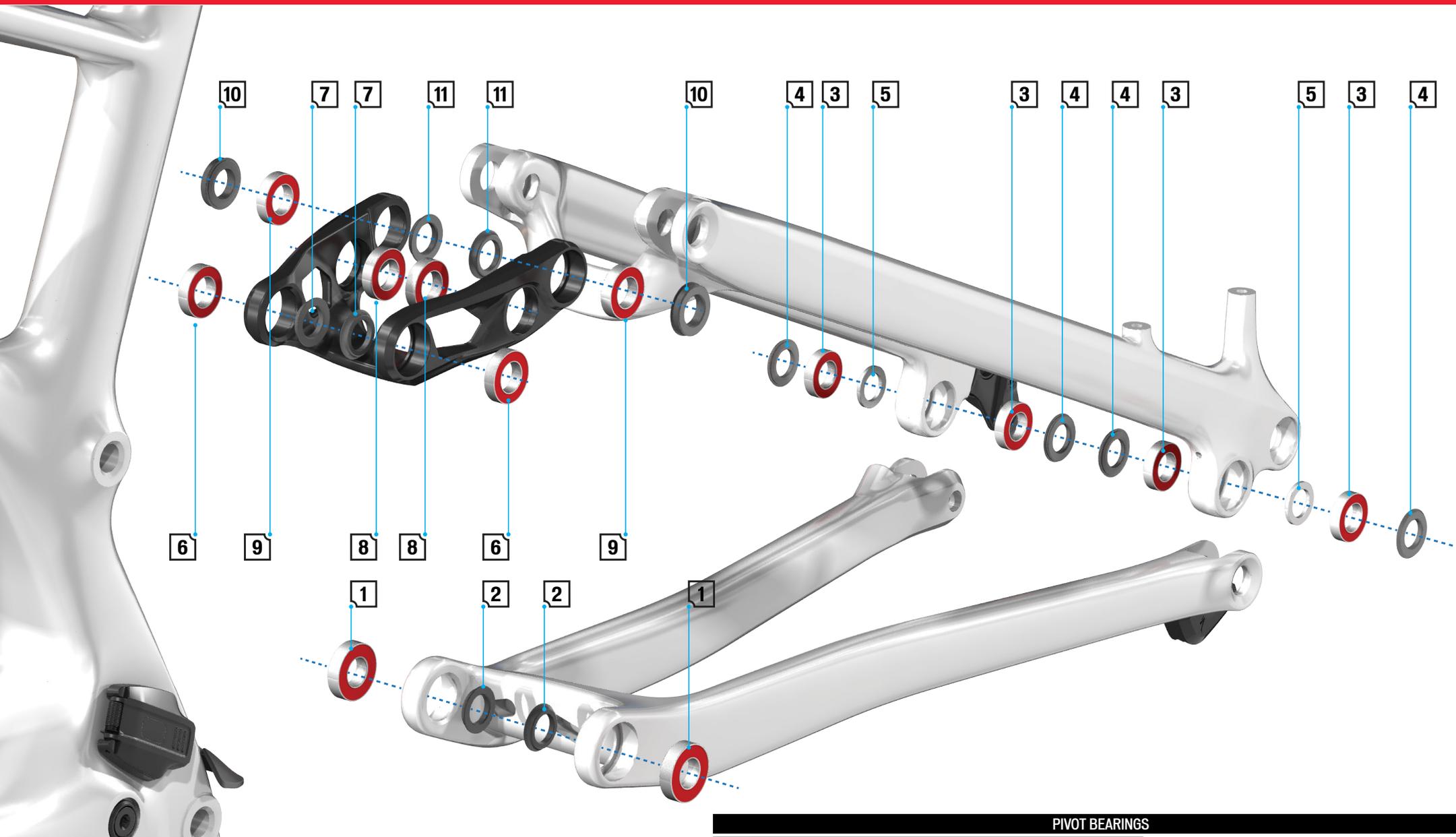
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00000147703_SC_R1, 01/20

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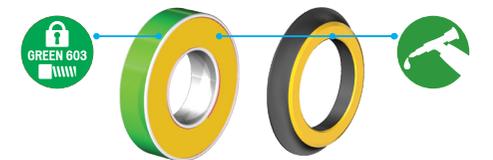


PIVOT BEARINGS	
	Grease all bearing surfaces before placing the spacers against the bearings. This helps keep the spacers in place when assembling each pivot. Always place the smaller (tapered) surface and/or the spacer seal against the bearing, and the wider surface against the frame or stay.
	Apply green loctite to all the bearing/bore interface surfaces, then press all the bearings into their respective pivot locations:



PIVOT BEARINGS

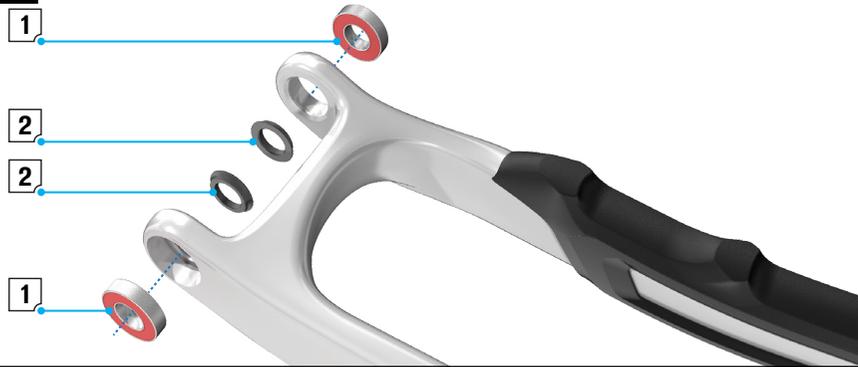
-  Grease all bearing surfaces before placing the spacers against the bearings. This helps keep the spacers in place when assembling each pivot. Always place the smaller (tapered) surface and/or the spacer seal against the bearing, and the wider surface against the frame or stay.
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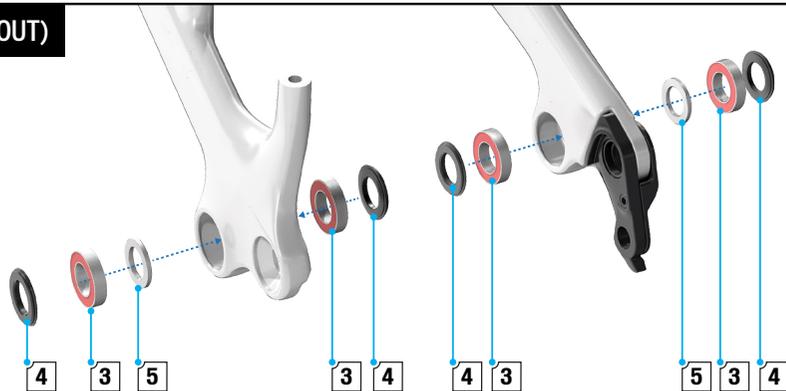


#	PIVOT	PART	QTY	MATERIAL	Ø OD	Ø ID	WIDTH	THREAD	LENGTH	TOOL	BEARING NUMBER	COMMENTS
1	Main (bottom bracket)	Bearing	2	Steel	24	12	6				6901-2RS	Full complement bearing
2		Spacer	2	Aluminum	19.5	12.1	3					Chamfered profile
3	Horst Link (dropout)	Bearing	4	Steel	21	12	5				6801-2RS	Full complement bearing
4		Spacer (outer)	4	Aluminum	20	12.1	2.5					Chamfered profile, sealed
5		Spacer (inner)	2	Aluminum	18.5	12.1	2					Square-edged profile
6	Link @ Seat Tube	Bearing	2	Steel	21	12	5				6801-2RS	Full complement bearing
7		Spacer	2	Aluminum	19.5	12.1	3					Chamfered profile
8	Link @ Extension	Bearing	2	Steel	21	12	5				6801-2RS	Full complement bearing
9	Link @ Seatstay	Bearing	2	Steel	21	12	5				6801-2RS	Full complement bearing
10		Spacer (outer)	2	Aluminum	20	12.1	4.5					Chamfered profile, sealed
11		Spacer (inner)	2	Aluminum	19.5	12.1	3					Chamfered profile

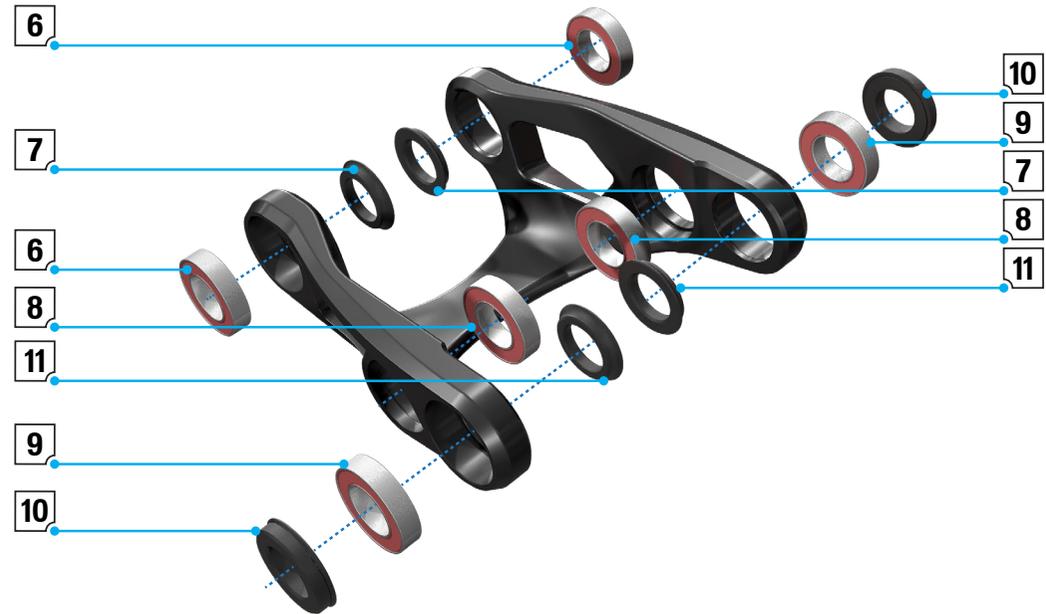
MAIN PIVOT BEARING

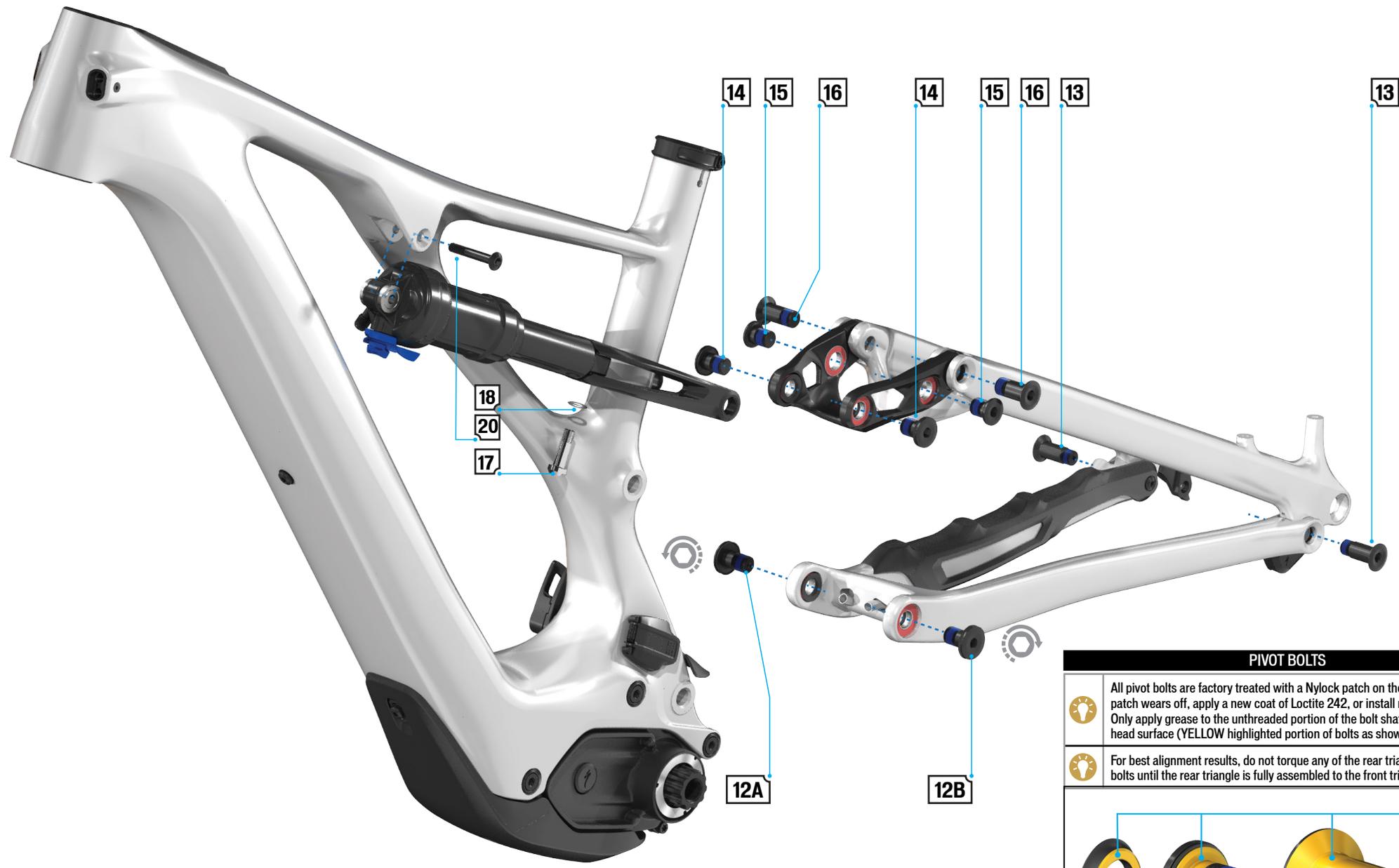


HORST LINK (DROPOUT)



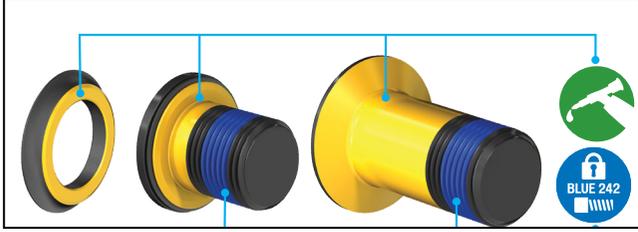
LINK

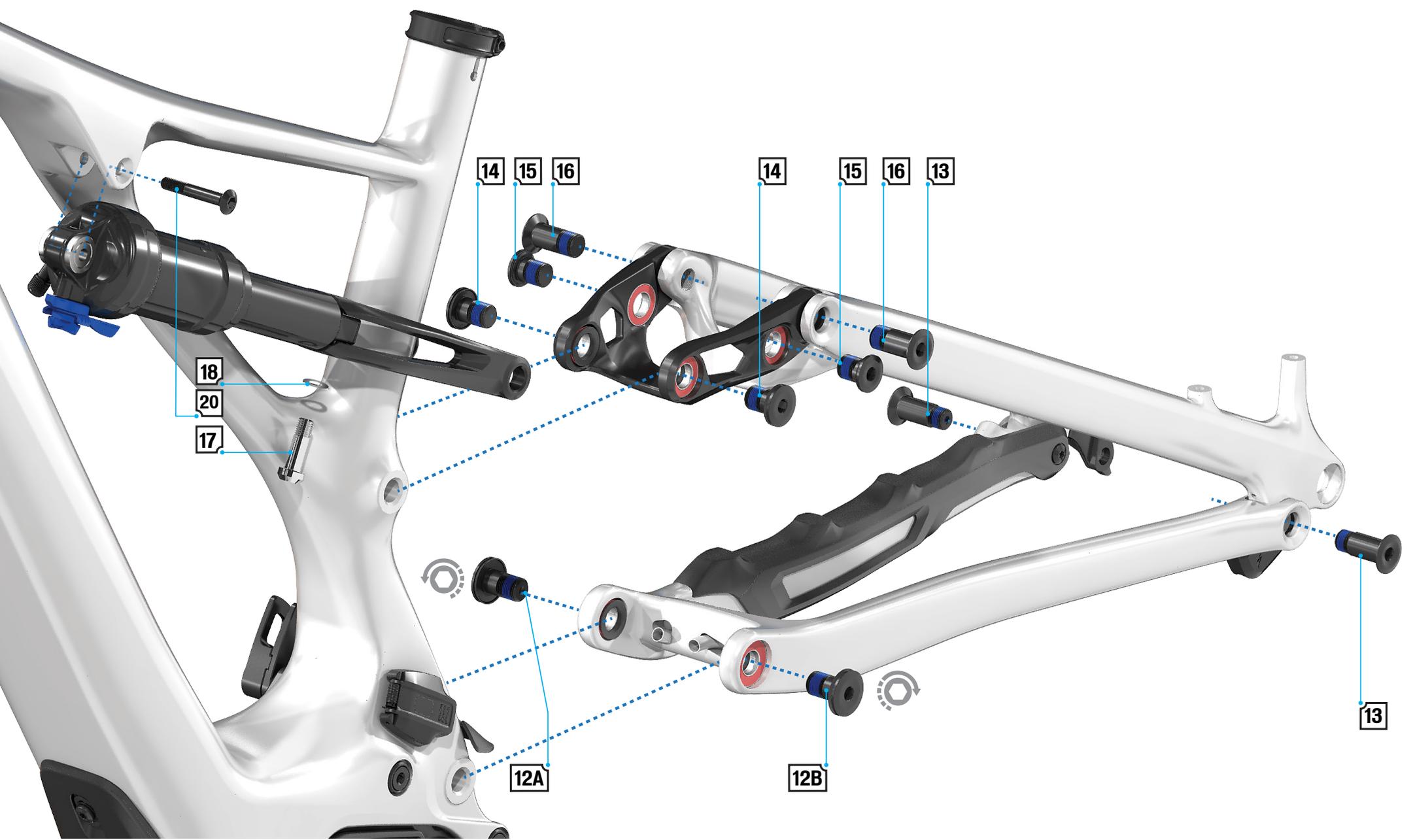




PIVOT BOLTS

- All pivot bolts are factory treated with a Nylock patch on the threads. If the patch wears off, apply a new coat of Loctite 242, or install new bolts. Only apply grease to the unthreaded portion of the bolt shaft and the inner bolt head surface (YELLOW highlighted portion of bolts as shown below).
- For best alignment results, do not torque any of the rear triangle pivot and shock bolts until the rear triangle is fully assembled to the front triangle.

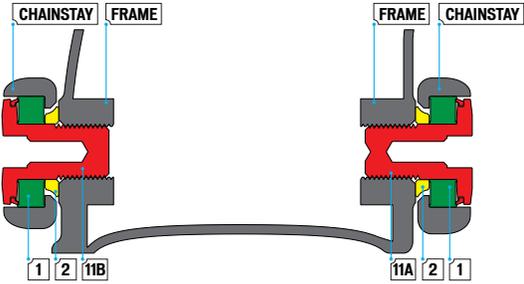




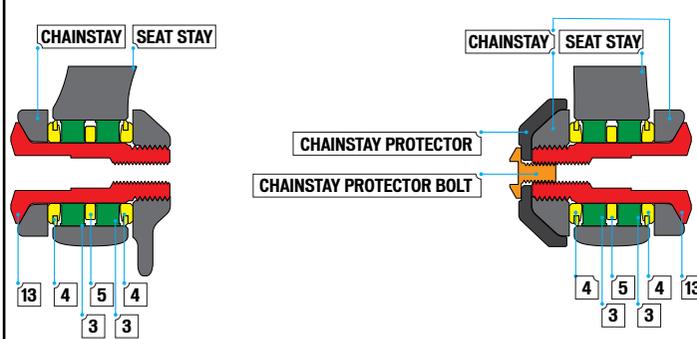


#	PIVOT	PART	QTY	MATERIAL	Ø OD	Ø ID	WIDTH	THREAD	LENGTH	TOOL	TORQUE (Nm / in-lbf)	COMMENTS
12a	Main - Drive side	Bolt (LH THREAD)	1	Aluminum	12			M12	20	6 mm HEX	24 / 210	Left hand thread
12b	Main - Non drive side	Bolt (RH THREAD)	1	Aluminum	12			M12	20	6 mm HEX	20 / 180	Right hand thread
13	Horst Link (dropout) pivot	Bolt	2	Aluminum	12			M11	27.8	6 mm HEX	20 / 180	Countersunk head
14	S-Link @ Seat Tube	Bolt	2	Aluminum	12			M12	17	6 mm HEX	20 / 180	With seal
15	S-Link @ Extension	Bolt	2	Aluminum	12			M12	14	6 mm HEX	20 / 180	With seal
16	S-Link @ Seatstay	Bolt	2	Aluminum	12			M12	25	6 mm HEX	20 / 180	With seal
17	Lower shock eye	Bolt	1	Stainless Steel	8			M8	25	6 mm HEX	24 / 210	TORQUE BOLT LAST
18		Washer	1	Stainless Steel	13	8.2	0.5					
19		Flip Chip	2	Stainless Steel								
20	Upper shock eye	Bolt	1	Steel Coated	6			M6	40	5 mm HEX	10 / 90	Countersunk head

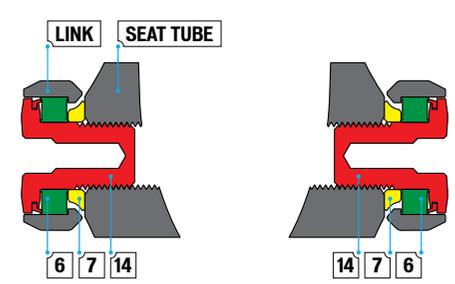
MAIN PIVOT



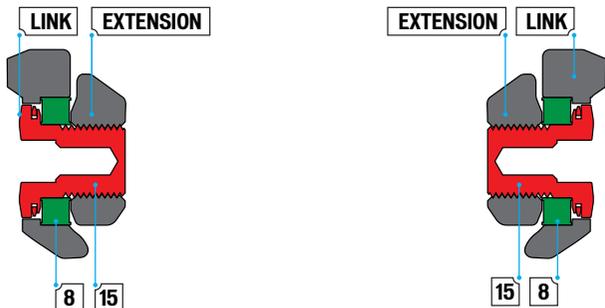
DROPOUT (Horst Link) PIVOT



LINK @ SEAT TUBE PIVOT



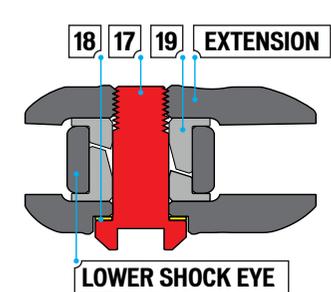
LINK @ EXTENSION PIVOT



LINK @ SEATSTAY PIVOT



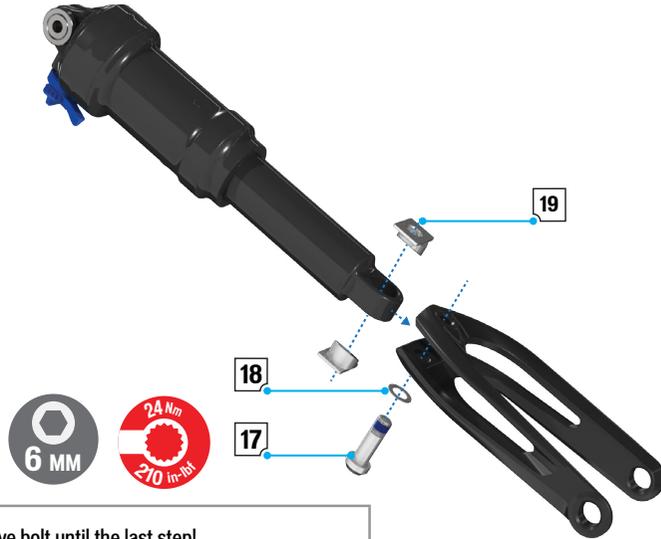
EXTENSION @ LOWER SHOCK EYE PIVOT





- Place the Flip Chip eccentric sleeves (19) inside the lower shock eye, in the High or Low mounting position (See Image 10 for details).
- Align the shock eye with the extension hole, then install the bolt/nut (17-18).

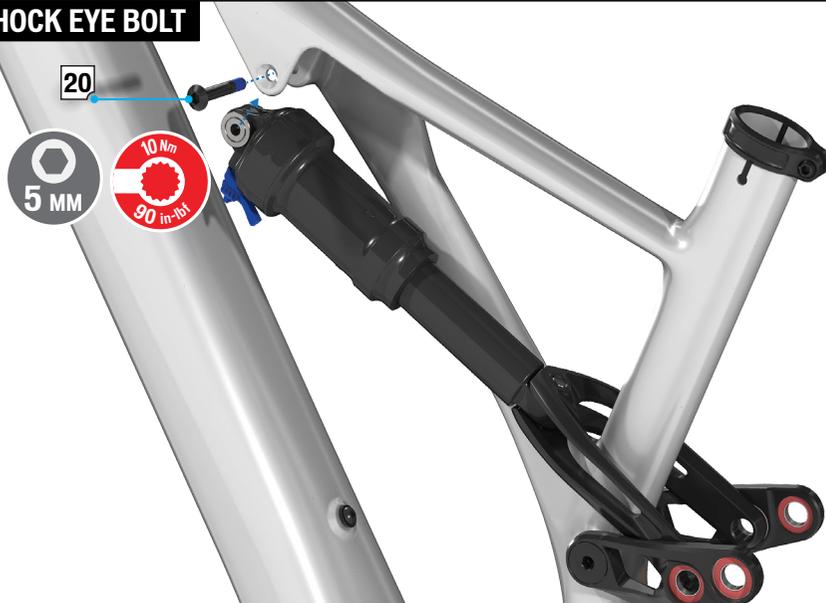
1 - EXTENSION @ SHOCK



Do not torque the lower shock eye bolt until the last step!

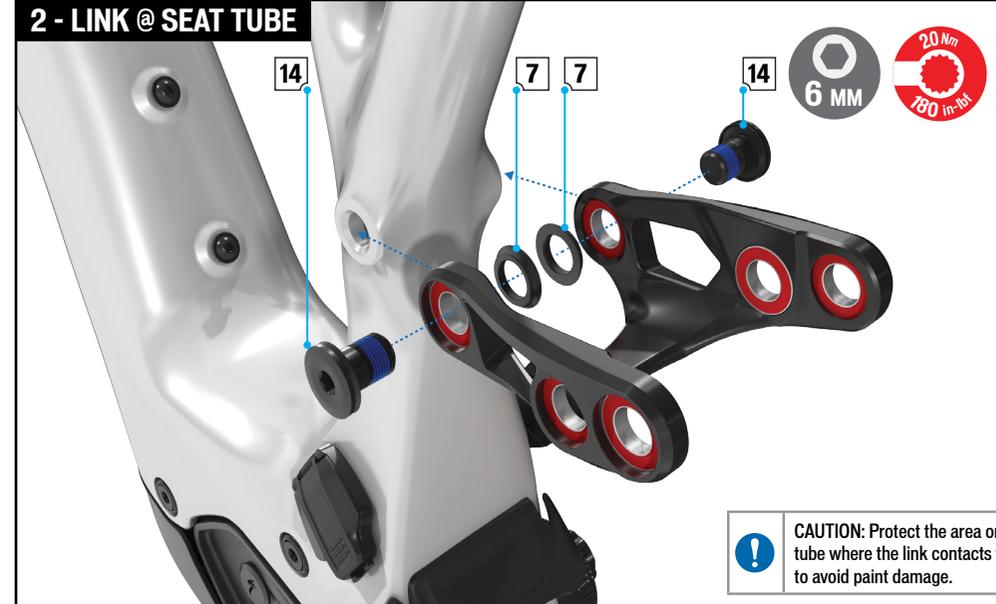
- Place the extension around the seat tube, then align the upper shock eye with the frame mount.
- Insert the upper shock eye bolt (19).

3 - UPPER SHOCK EYE BOLT



- Grease, then place the spacers (7) against the inner surface of the link @ seat tube bearings (tapered surface against the bearing).
- Align the link with the seat tube pivot, then insert the pivot bolts (14).

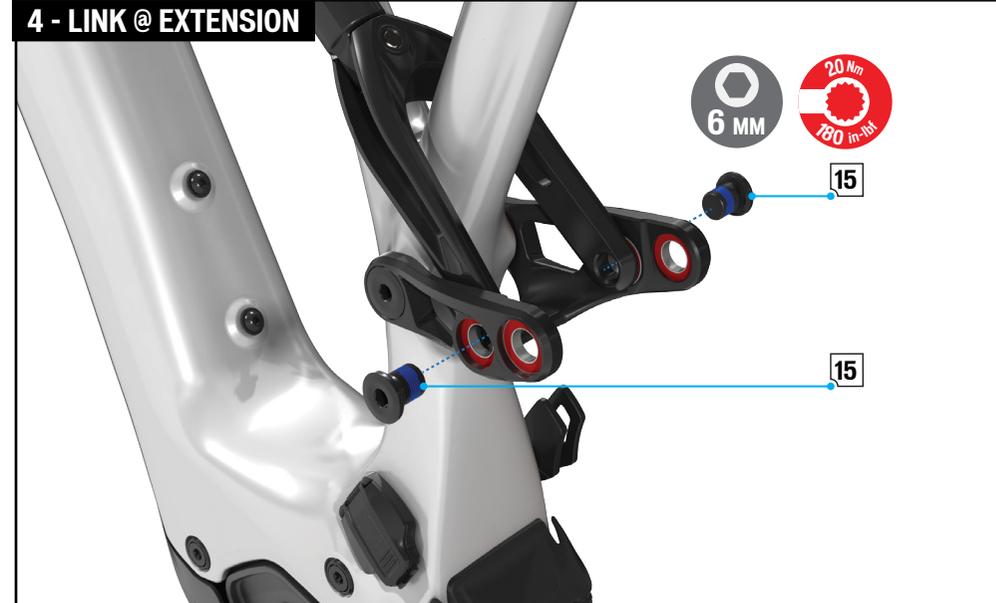
2 - LINK @ SEAT TUBE



CAUTION: Protect the area on the seat tube where the link contacts the frame to avoid paint damage.

- Align the extension with the bearings, then insert the pivot bolts (15).

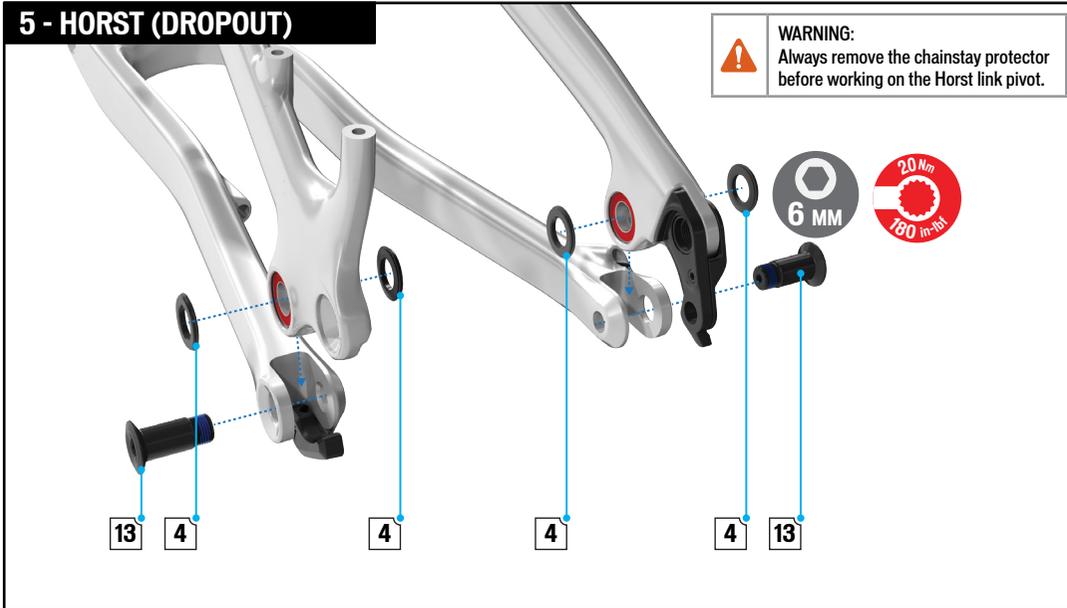
4 - LINK @ EXTENSION





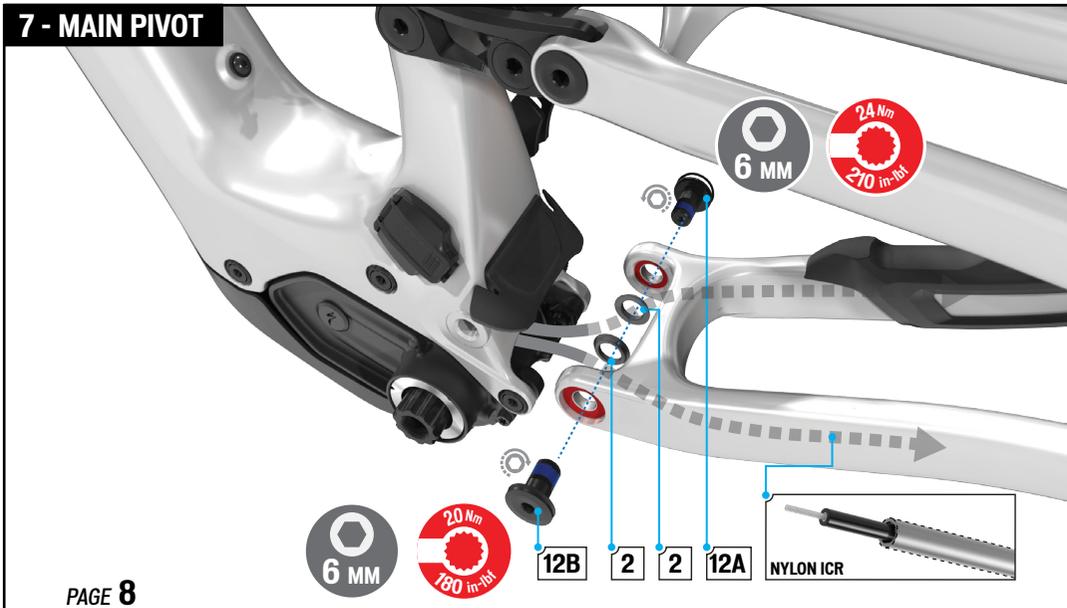
- Grease, then place all the outer Horst link spacers (4) against the Horst link bearings (tapered surface against the bearing).
- Align the drive-side and non-drive side Horst pivot assemblies, then insert the pivot bolts (13).

5 - HORST (DROPOUT)



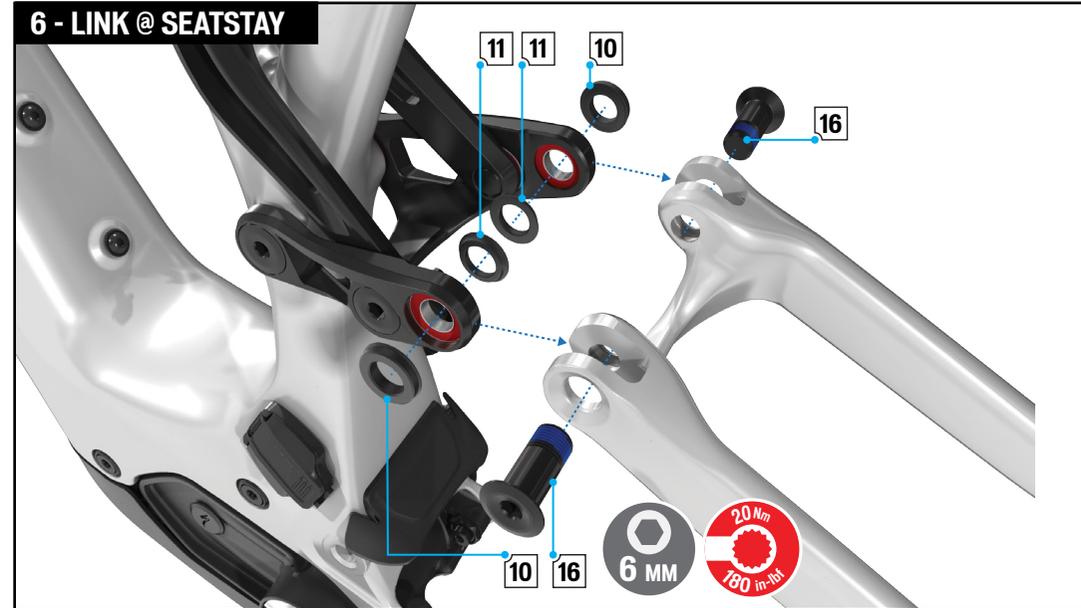
- Grease, then place the main pivot spacers against the main pivot bearings (2) (tapered surface against the bearing).
- Align the chainstay tabs with the main pivot bearings and spacers, then insert the pivot bolts (12).

7 - MAIN PIVOT



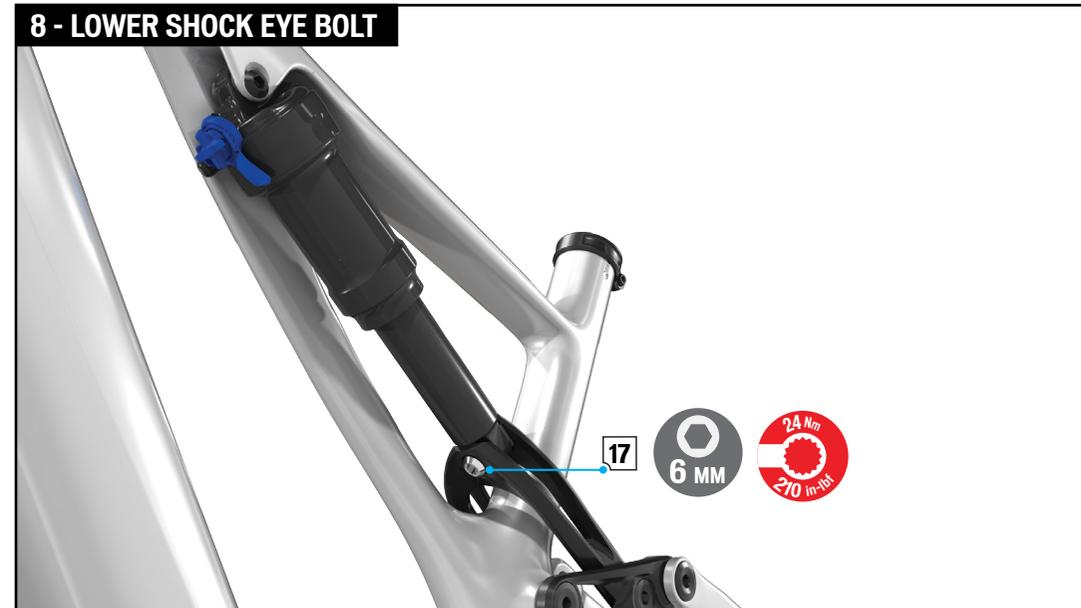
- Grease, then place the two outer spacers (10) (with seals against the bearing) and two inner spacers (11) (tapered surface against the bearing) against the link bearings.
- Align the seatstay tabs with the link pivot bearings and spacers, then insert the pivot bolts (16).

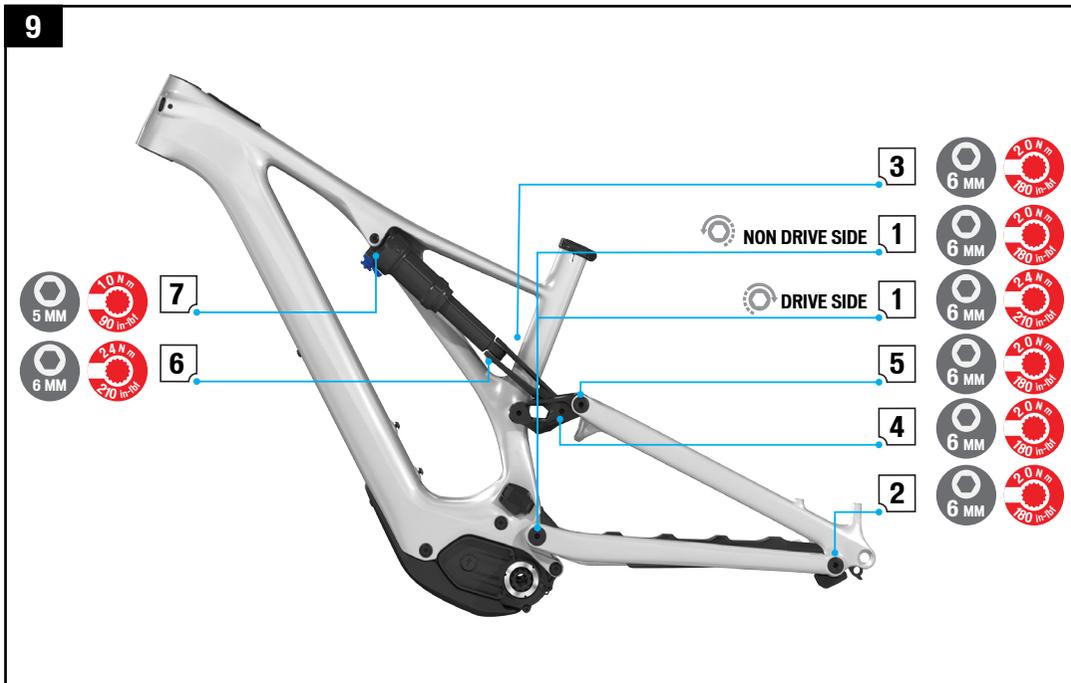
6 - LINK @ SEATSTAY



- Once all pivot locations are assembled and torqued to specification, torque the lower shock eye bolt (17).

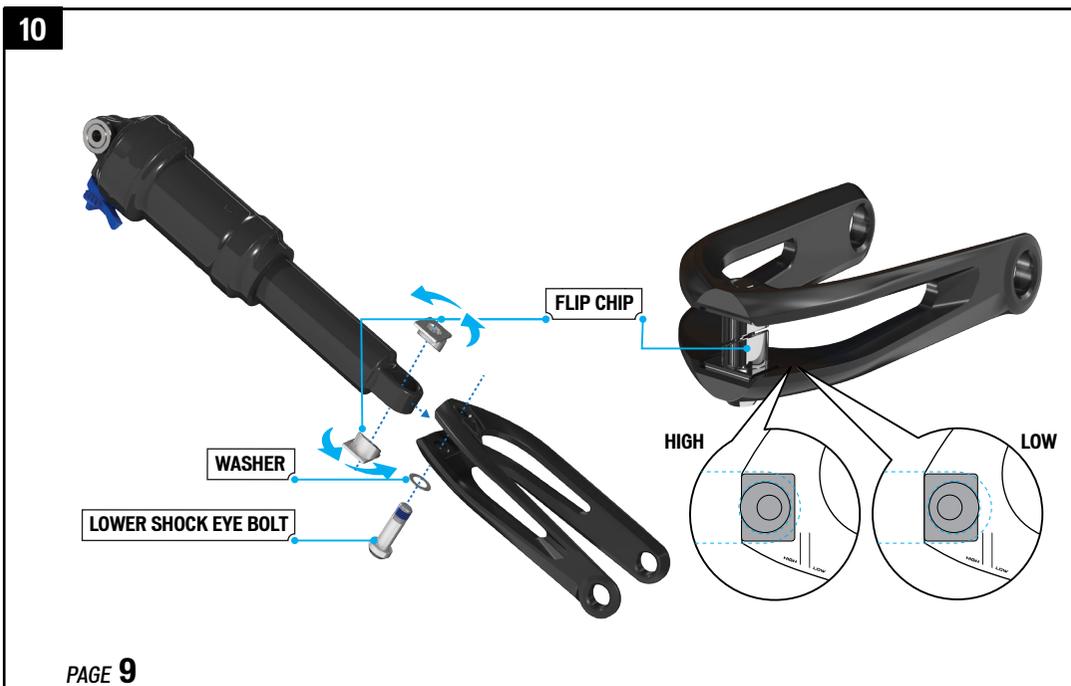
8 - LOWER SHOCK EYE BOLT





PIVOT BOLT SPECIFICATIONS

#	LOCATION	TOOL	TORQUE (Nm / in-lbf)
1	Main	6 mm HEX	24 / 210
2	Dropout (Horst Link) pivot	6 mm HEX	20 / 180
3	Link @ Seat Tube	6 mm HEX	20 / 180
4	Link @ Extension	6 mm HEX	20 / 180
5	Link @ Seatstay	6 mm HEX	20 / 180
6	Lower shock eye	6 mm HEX	24 / 210
7	Upper shock eye	5 mm HEX	10 / 90



FLIP CHIP

- ⚡ All models are assembled with the Flip Chip in the Low position. Switching to the High position raises the bottom bracket height by approximately 5-6 mm and steepens the head tube angle by approximately 0.5°.
- ⚡ Place a rag between the link and the seat tube to make sure the link doesn't make contact with the seat tube.

- Remove the upper shock eye bolt and the two extension bolts, then remove the extension/shock assembly from the bike.
- Remove the lower shock eye bolt, then remove the Flip Chip halves out of the lower shock eye.
- Rotate the Flip Chip halves 180° then push them back into the lower shock eye.
- Assemble the lower shock eye to the extension and install the bolt (do not torque at this time).
- Install then torque to specification the upper shock eye bolt and the two extension bolts.
- Torque the lower shock eye bolt to 24 Nm.