



Revel Bikes: Rail & Rascal Bearing & Linkage Removal/Install

2/27/2019

Service and maintenance of Revel bicycles require shop grade tools and knowledge of working on bicycles. It is always recommended to take your Revel bike to a professional for service and maintenance. Always wear eye protection. It is critical to use the proper tools, Loctite, grease and torque specifications during assembly. Failure to follow these instructions may result in serious bodily injury or death, and damage to your beloved bike!

Tool list:

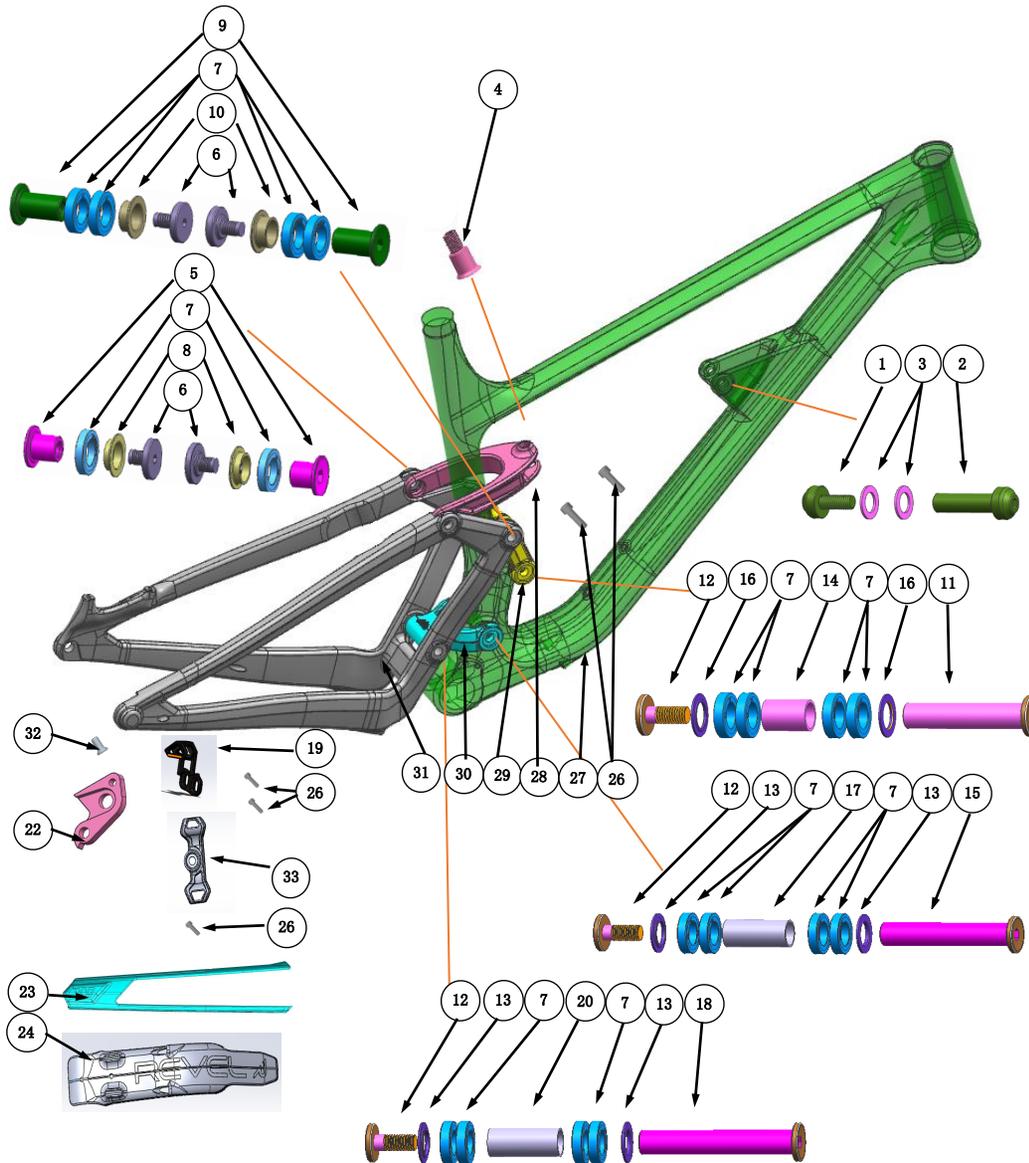
- 8mm, 6mm, and 4mm Allen wrenches
- Torque wrench with 8mm, 6mm, and 4mm hex bits
- Bearing removal tool (Enduro Bearings™ blind hole puller or Wheels Manufacturing™ bearing extractor with punch and hammer)
- Bearing press with drifts for 6801 bearing (12x21mm)
- Medium weight grease
- Blue 243 or 242 Loctite™ medium thread locker
- Standard sharpie marker, any color of the rainbow
- Clean towel and isopropyl alcohol

Replacement parts:

- REVEL Rail or Rascal Bearing kit: 10 x 6801 (12x21x5mm) full complement or Max type bearings
- If needed: REVEL Rail or Rascal Hardware kit



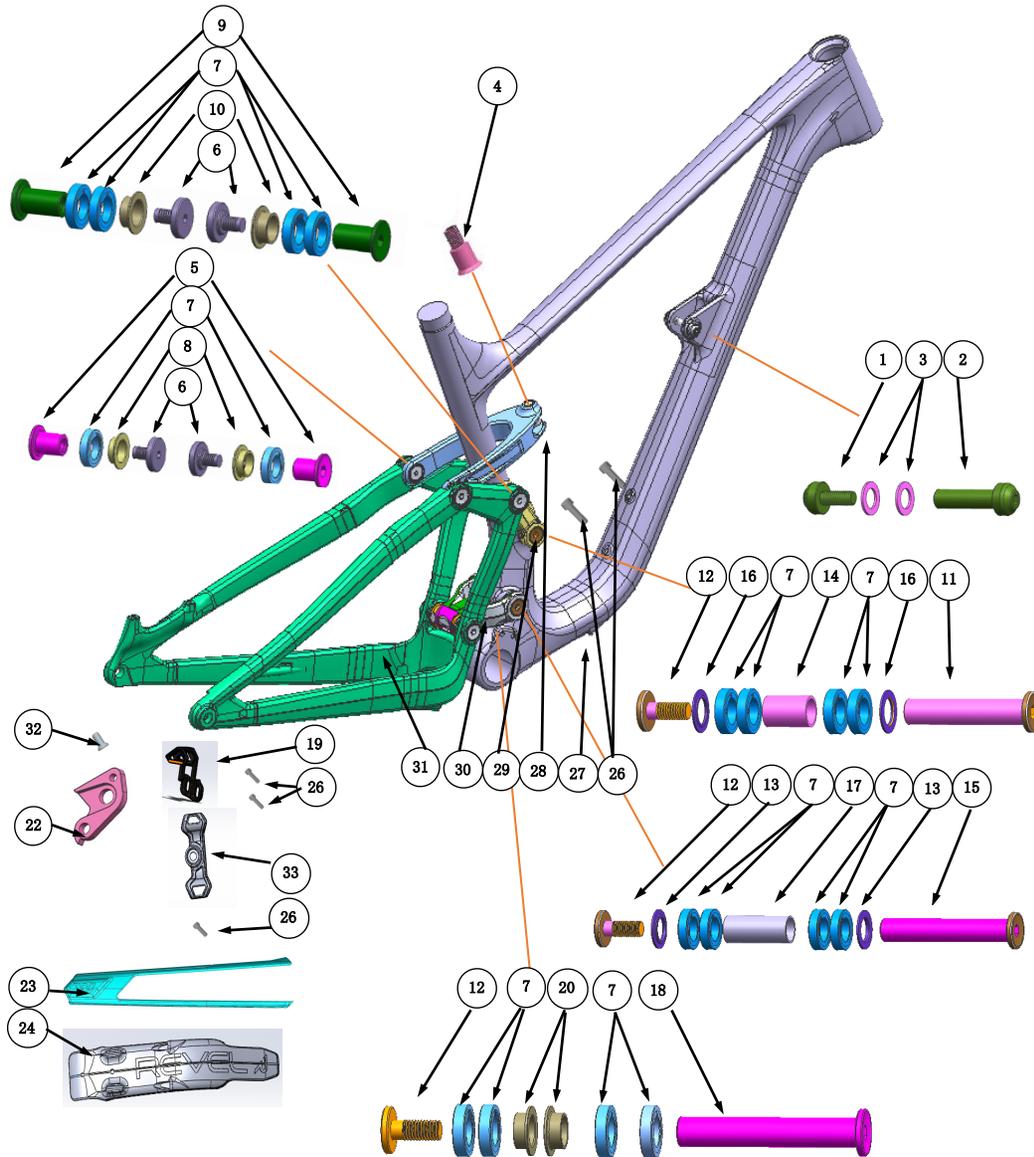
REVEL RAIL Part Numbers



	Part No.	Name	Specification
1	310-FRA18-0131	Forward Shock Mount Bolt	M6 x P1.0 x 15mm
2	310-FRA18-0130	Forward Shock Mount Axle	M6 x P1.0 x 39mm
3	310-FRA18-0129	Forward Shock Mount Washers	13.8m x 8.5m x 1mm
4	310-FRA18-0128	Rear Shock Mount Bolt	M10 x 27.9mm
5	310-FRA18-0126	Pivot #5 Axle	M8 x P1.25 x L18mm
6	310-FRA18-0127	Pivot #3/5 Bolt	M8 x P1.25 x L15.5mm
7	310-BEA18-6801	6801 Full Compliment Bearings	12 x 21 x 5mm
8	310-FRA18-0125	Pivot #5 Spacer	20 x 12.2 5.15mm
9	310-FRA18-0122	Pivot #3 Axle	M8 x P1.25 x 24.5mm
10	310-FRA18-0121	Pivot #3 Spacer	20 x 12.2 x 7mm
11	310-FRA18-0120	Pivot #2 Axle	M8 x P1.25 x 64mm
12	310-FRA18-0117	Pivot #1/2/4 Bolt	M8 x P1.25 x 23mm
13	310-FRA18-0115	Pivot #1/4 Spacer	20 x 12.2 x 2mm
14	310-FRA18-0118	Pivot #2 Inner Spacer	12.1 x 14.5 x 22mm
15	310-FRA18-0116	Pivot #1 Axle	M8 x P1.25 x 75mm
16	310-FRA18-0119	Pivot #2 Spacer	20 x 12.2 x 1.5mm
17	310-FRA18-0114	Pivot #1 Inner Spacer	12.1 x 14 x 35mm
18	310-FRA18-1124	Pivot #4 Axle	M8 x P1.25 x 80.2mm
19	310-FRA18-0113	Chain guide	Revel Rail/Rascal Custom
20	310-FRA18-1123	Pivot #4 Inner Spacer	12.1 x 14 x 24.9mm
22	310-HAN18-0107	Deraileur Hanger	Revel Rail/Rascal Custom
23	310-FRA18-0109	Chainstay Protector	Revel Rail/Rascal Custom
24	310-FRA18-0110	Downtube Protector	Revel Rail/Rascal Custom
26	310-FRA18-0112	Socket Cap Screws	M5 x P0.8 x 12mm
27	310-FRA18-1101	Rail Front Triangle	Revel Rail
28	310-FRA18-1105	Yoke/Pusher Link	Revel Rail
29	310-FRA18-1104	Upper Link	Revel Rail
30	310-FRA18-1103	Lower Link	Revel Rail
31	310-FRA18-1102	Rail Rear Triangle	Revel Rail
32	310-HAN18-0108	Deraileur Hanger Bolt	M6 x P1.0 x 8 x 13.9mm
33	310-FRA18-0111	Downtube Hose Clamp	Revel Rail/Rascal Custom



REVEL RASCAL Part Numbers



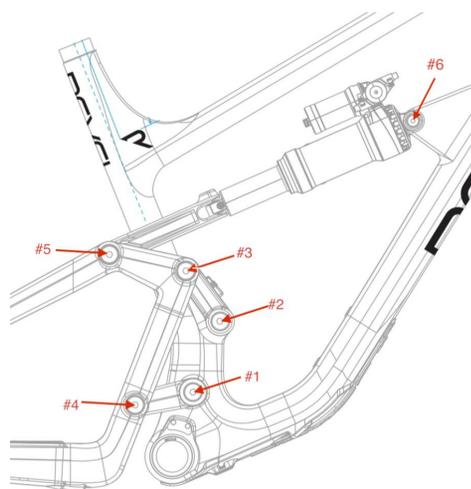
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4	310-FRA18-0128	Rear Shock Mount Bolt	M10 x 27.9mm
5	310-FRA18-0126	Pivot #5 Axle	M8 x P1.25 x L18mm
6	310-FRA18-0127	Pivot #3/5 Bolt	M8 x P1.25 x L15.5mm
7	310-BEA18-6801	6801 Full Compliment Bearings	12 x 21 x 5mm
8	310-FRA18-0125	Pivot #5 Spacer	20 x 12.2 x 5.15mm
9	310-FRA18-0122	Pivot #3 Axle	M8 x P1.25 x 24.5mm
10	310-FRA18-0121	Pivot #3 Spacer	20 x 12.2 x 7mm
11	310-FRA18-0120	Pivot #2 Axle	M8 x P1.25 x 64mm
12	310-FRA18-0117	Pivot #1/2/4 Bolt	M8 x P1.25 x 23mm
13	310-FRA18-0115	Pivot #1 Spacer	20 x 12.2 x 2mm
14	310-FRA18-0118	Pivot #2 Inner Spacer	12.1 x 14.5 x 22mm
15	310-FRA18-0116	Pivot #1 Axle	M8 x P1.25 x 75mm
16	310-FRA18-0119	Pivot #2 Spacer	20 x 12.2 x 1.5mm
17	310-FRA18-0114	Pivot #1 Inner Spacer	12.1 x 14 x 35mm
18	310-FRA18-2124	Pivot #4 Axle	M8 x P1.25 x 79mm
19	310-FRA18-0113	Chain guide	Revel Rail/Rascal Custom
20	310-FRA18-2123	Pivot #4 Spacer	20 x 12.2 x 6.5mm
22	310-HAN18-0107	Deraileur Hanger	Revel Rail/Rascal Custom
23	310-FRA18-0109	Chainstay Protector	Revel Rail/Rascal Custom
24	310-FRA18-0110	Downtube Protector	Revel Rail/Rascal Custom
26	310-FRA18-0112	Socket Cap Screws	M5 x P0.8 x 12mm
27	310-FRA18-2101	Front Triangle	Revel Rascal
28	310-FRA18-2105	Yoke/Pusher Link	Revel Rascal
29	310-FRA18-2104	Upper Link	Revel Rascal
30	310-FRA18-2103	Lower Link	Revel Rascal
31	310-FRA18-2102	Rear Triangle	Revel Rascal
32	310-HAN18-0108	Deraileur Hanger Bolt	M6 x P1.0 x 8 x 13.9mm
33	310-FRA18-0111	Downtube Hose Clamp	Revel Rail/Rascal Custom



Disassembly of linkage and removal of bearing

Removal of rear wheel, cranks, and chain guide is recommended.

1. Loosen all bolts while leaving axles, bolts and hardware in place. This make it easier to remove the pivot axles from their pivots, reducing binding during removal.
2. Remove bolts, pivot axles, and spacers from position #5 and #6 using a 6mm hex wrench and 4mm hex wrenches. Clean pivot axles, bolts, and spacers and reassemble out of the frame, holding all spacers together so they don't become lost or swapped with other hardware. Carefully remove the yoke/shock assembly from the front triangle, placing it aside.



3. Remove bolt, pivot axle, and spacers from pivot #4. Clean pivot axles, bolts, and spacers and reassemble out of the pivots, holding all spacers together so they don't become lost or swapped with other pivot spacers. Repeat process for pivots #3, #2, and #1.



**note: if rear brake and shifter are still attached, attaching the rear triangle to the front triangle, a strap (toe strap or Volle™ work well) can be threaded through the BB and rear triangle to minimize kinking of the housing and hoses.*

**note: A Sharpie™ marker can be used to push the pivot axle out of the pivot and/or hold the link in place without a pivot axle.*

4. Only remove and replace bearings if needed: Remove all bearings using an Enduro Bearings™ blind hole puller slide hammer or Wheels Manufacturing™ bearing extractor, punch, and hammer. Be careful to not damage the bearing spacer sleeve between each bearing set in the frame and lower link. Be sure to remove the bearings straight out of the bore, avoiding any tilting of the bearing as it is removed.

**note: take care in holding rear triangle securely when removing bearings. Placing the rear triangle on a work bench with a rubber matte ensures paint and rear triangle are not damaged.*

5. Discard of any removed bearings and replace with new 6801 full complement or Max type bearings.

Bearing installation:

6. Clean bearing bores and hardware with Isopropyl alcohol, and ensure you have new bearings and any replacement hardware needed for reassembly.
7. Using a finger, apply a light coat of grease to each bearing bore before installation.
8. Using a bearing press with drifts for 6801 bearings, which are 12mm x 21mm in size, press each bearing into pivots #1, #2, and #4. Double bearing pivots may require pressing one bearing in partially, then the next bearing to reach full press depth, depending on the depth of your drift.



9. For pivots #3 and #4, press one bearing in at a time, with the bearing press sandwiching the bore location. DO NOT press across the entire width of the rear triangle, as this could damage the frame.

Reassembly:

10. Starting at pivot #1 apply a thin layer of grease to the surface of the bearings. Stick the correct spacers to the surfaces of the greasy bearing faces, with the spacer lip facing the bearing. Refer to the exploded view for proper spacer and hardware part numbers/size.
11. Slide the lower link into position and use a Sharpie™ marker as a guide pin to aid in lining up the link and spacers to the bearings.
12. Apply a small amount of grease to the underside of where the pivot axle head and bolt head will meet the frame or link.
13. Apply a thin layer of grease to the #1 pivot axle, and install it into place, pushing the Sharpie™ out of the pivot. No grease should be present on the pivot axle threads
14. Apply 2 drops of thread locker to the pivot bolt threads. No grease should be present on the bolt threads.
15. Install the bolt lightly, but do not tighten. All bolts will be tightened after all links and hardware are in place.
16. Repeat steps 10-15 for Pivots #2, #3, then #4.
17. Using a torque wrench w/ 6mm hex bit and a 4mm Allen wrench, torque pivot bolts to **10Nm**.
18. Install the shock damper body eyelet into the yoke out of the frame. Apply a few drops of thread locker to the threads of the M10 shock mount bolt. Apply a thin layer of the grease to the 15mm mount bolt shaft. Install bolt into the yoke, tightening lightly.



19. Install the yoke/shock assembly into the frame and install the forward 10mm shock hardware into place. Use grease or Ti prep if needed on the bolt threads.
20. Using a torque wrench w/ 4mm hex bit and a 4mm Allen wrench, torque forward shock bolt to **10Nm**.
21. Apply a thin layer of grease to pivot #5 axles and install it into place. No grease should be present on the pivot axle threads
22. Apply 2 drops of thread locker to the pivot #5 bolt threads. No grease should be present on the bolt threads.
23. Using a torque wrench w/ 6mm hex bit and a 4mm Allen wrench, torque pivot #5 bolts to **10Nm**.
24. Using a torque wrench w/ 12mm hex bit, torque rearward shock mount bolt to **15Nm**.
25. Reinstall any other removed parts to the manufacturer's specifications.

GO RIDE YOUR BIKE!