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Safety

WARNING:

- As with all mechanical components, the bicycle is subjected to wear and high stresses. Different materials and components might react to wear or stress fatigue in different ways. If the design life of a component has been exceeded, it may suddenly fail, possibly causing injuries or death to the rider. Any form of crack, scratches, or change of colouring in highly stressed areas indicate that the life of the component has been reached and it should be replaced. Additionally, after a crash or impact even without visible damage – affected components should be replaced or a professional opinion should be sought.
- For composite components for example the frame, impact damage is often invisible to the user. In the event of any impact you should stop using the bicycle immediately and return affected components to the manufacturer for inspection. Failure to do so may result in catastrophic failure and injury or death.

Usage

This product is intended for off road use on trails and tracks. It is not designed for use on Downhill style tracks or competitive racing. The use of this product in downhill bike parks including jumps or drops is not recommended. The use of any bicycle on or off-road, even the best circumstances, is dangerous and may result in injury or death. Correct set-up and maintenance is your responsibility and helps reduce the risk of injury, death, or damage to your bicycle.

Environmental:

High or low temperature exposure may result in damage to components. The safe operating temperature is between -10°C and +50°C.

Protective Equipment

The use of a bicycle helmet and gloves are recommended as well as other protective gear appropriate to the terrain – for example knee guards, elbow guards or a spine protector.

Suspension

Suspension set-up and adjustment should be carried out according to the manufactures recommendations. Please refer to the suspension manufacturers product instructions.

Pre-ride Checks:

All bolts and fasteners should be checked before according to the recommendations in the Maintenance section of this manual or the manufactures recommendations. Brake function and tyre pressure, wheel fitment and the functioning of the suspension should be checked before every ride. Additionally, normal functioning of pedals and drivetrain should be checked.

Entrapment:

There is a risk of entrapment of body parts during maintenance and normal use. Care should be taken when maintaining moving parts and appropriate protective equipment should be worn. During normal use care should be taken to prevent loose clothing catching in the moving parts.

Luggage and Child Seats or Carrier:

The bicycle is not suitable for the fitment of any luggage carrying device or any child seat or carrier.

Permissible Weight:

The total permissible weight of a rider including gear is 120kg.

Public Roads:

If used on public roads it is your responsibility to ensure your bike is legal and roadworthy.



Assembly

Below is a list of the specific “standards” that parts fitted to the Highlander frame must adhere to. You must refer to the specific product instructions provided with any parts you fit to the Highlander.

Interface	Standard/Information
Rear Wheel:	29", Boost: 148mm x 12mm
Fork Compatibility:	29" 150-160mm (42mm and 51mm offset) single crown forks only. Fork crown interference with downtube MUST be checked before fitting forks.
Bottom Bracket:	73mm BSA Threaded
Headset:	ZS44/ZS56
Chainline:	52mm (any deviation from this will cause increased idler wear)
Chain length:	126 links (widely available, no need to join chains)
Max Chainring Size:	36t round (oval chainrings may fit depending on design but check for interference before riding)
Shock Size:	Metric 210x55mm (coil or air)
Shock Hardware:	Front: 30x8mm Rear: bushing
Shock Average leverage ratio:	2.54 mm/mm
Brake Mount:	Post Mount 180mm
Seatpost Compatibility:	Internal dropper routing with internal cable routing. 31.6mm, Minimum Insertion Depth: 100mm. Maximum Insertion Depth: Medium:- 300mm, Large:- 330mm
Seat Collar:	34.9mm (supplied with frame)
Max Tyre Size:	2.8"

Deviante Cycles recommends this bike is assembled by a competent bike mechanic.

The following tips may help with assembly:

Seat Post Dropper Cable:

The frame houses an internal tube which guides the dropper post cable inside the frame to the bottom of the seat tube. To reduce water ingress and protect the paint, ensure to fit the grommet to the cable before inserting into the frame.

Top Tube Cable Guides: The purpose of the top tube profile is to maintain the sleek look of internal cable routing, while stiffening the top tube. There are a number of cable clamps along the length of the tube. These provide clamping for the cables, but also serve as tool fixing points, Di2 or additional bottle mounting.

Shock Fitment:

Ensure the air valve and any parts of the shock do not interfere with the frame before you ride. Check the full range of suspension motion.

Bottom Bracket Washer:

Provided in the box is a BB washer (part number 14 on Front Triangle Assembly). Please ensure this is fitted when installing the BB between the frame and BB. It replaces the 2.5mm spacer found with BB's to achieve a 52mm chainline. Additional spacers may be required for certain BB's.



Maintenance

Service Intervals:

Action	Every ride	Every 50 hours	Notes
Clean and lube chain	◆		We recommend to refrain from wax chain lubricants
Check tire pressures	◆		
Clean worst of mud/debris	◆		
Check brake function	◆		
Clean stanchions	◆		
Check brake pad wear	◆		
Check shock pressure	◆		Pressure set according to riders preference (25-30% sag typical)
Check for loose bolts	◆		Refer to diagrams in this manual or manufacturers guidelines
Lube grease ports		◆	Use of needle grease ports on all pivots
Check tyres for wear		◆	
Check spoke tension		◆	
Check drivetrain for wear		◆	Replace chain before 0.75% wear
Check bearing wear		◆	Check for play in pivots and idler
Rebuild linkages			As required
Fork service			Refer to fork manufacturers recommendations
Shock service			Refer to shock manufacturers recommendations

Bolt torque summary:

Part	Torque (Nm)
Main Pivot Bolt	30
Pull Link to Rocker Bolt	30
Pull Link to Rear Triangle Bolt	20
Shock Extender to Rocker Bolts	20
Shock Extender to Shock Bolt	20
Shock Mount Bolt	10
Rear Axle	10
Idler Cover Bolts	2
Drop Out Bolt	2
Bottle Cage Bolts	3

If a bolt is found to be loose it should be removed and the relevant thread lock should be applied as detailed in the product diagrams.



Parts List

Quick reference spares

The following table is a quick reference for typical spares you might need over the life of the bike:

Part	Part Number	Quantity per frame
Dropout	TRP04-D9-008	1
Insert – Rear Axle	TRP04-D9-009	1
Idler – 18T	TRP04-D9-006	1
Idler bearings	61803-2RS1	2
Main Pivot , Rear Links, Extender Bearing	3802 LLU MAX	7
Rocker Bearing	6808 LLU MAX	2
Idler Seals, Main Pivot Seals	SEAL – 20x26x4 TC	10
Rear triangle inner seal	SEAL – 16x22x4TC	2
Cable Grommet	TRP04-F9-026	3

Deviante Cycles can happy to supply any spares that you may need for your bike, but some items such as bearings and seals can be sourced from you local bearing dealer.

For all other frame related spares please contact us or check the online store. The use of non-genuine parts is not recommended and would void the warranty associated with Deviate products.

The following 3 sheets contain the assembly drawings and parts lists for the Highlander.

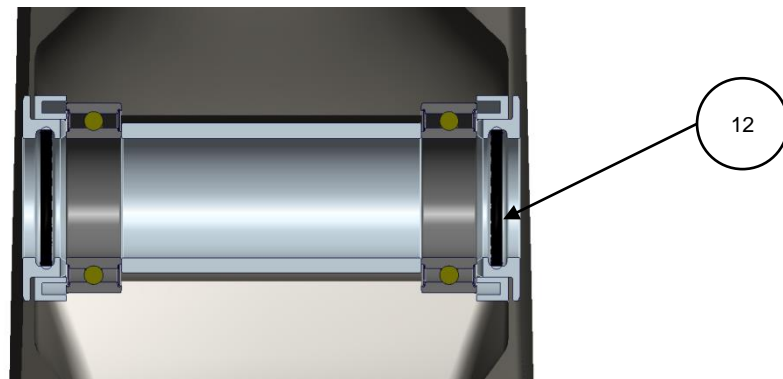


Front Triangle Assembly

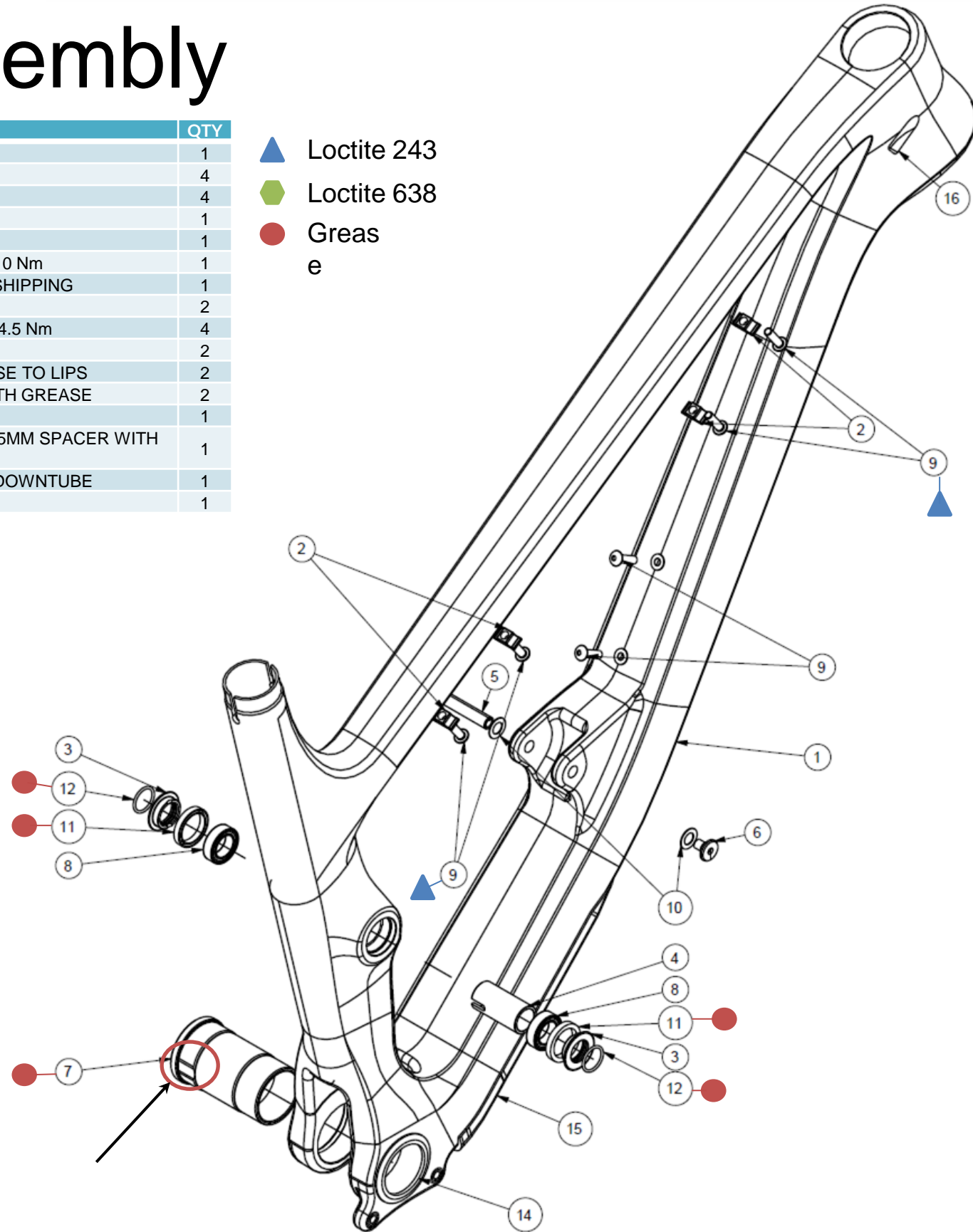
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ITEM	PART NUMBER	NAME	NOTES	QTY
1	TRP04-F9-XXX	FRAME - CARBON		1
2	TRP04-F9-010	CLAMP - CABLE GUTTER		4
3	TRP04-F9-011	TOP HAT - PIVOT		4
4	TRP04-S9-035	SPACER TUBE - MAIN PIVOT		1
5	TRP04-F9-016	SLEEVE - FRAME BOLT		1
6	TRP04-F9-017	BOLT - SLEEVE FRAME	TORQUE TO 10 Nm	1
7	TRP04-F9-015	AXLE - BOTTOM BRACKET	FITTED FOR SHIPPING	1
8	3802LLUMAX	ENDURO BEARING 3802 LLU MAX		2
9	BTN HEAD M5X18	BUTTON HEAD - M5 X 18	TORQUE TO 4.5 Nm	4
10	DIN988 - 8x14x0.5	WASHER - DIN988 - 8x14x0.5		2
11	SEAL 20x26x4 TC	SEAL - 20x26x4 TC	APPLY GREASE TO LIPS	2
12	O-RING 15x1.5	O-RING - 15x1.5MM	PREPARE WITH GREASE	2
13	SEAT CLAMP 34.9	AS PER AMP03	NOT SHOWN	1
14	TRP04-F9-024	WASHER - BB	REPLACES 2.5MM SPACER WITH BB	1
15	TRP04-F9-030	PROTECTION - DOWNTUBE - MOULDED	BONDED TO DOWNTUBE	1
16	TRP04-F9-026	GROMMET		1

- ▲ Loctite 243
- ◆ Loctite 638
- Greas e



Cross section on Main Pivot bearings



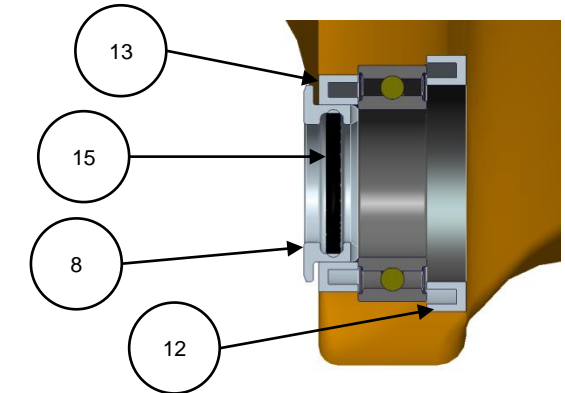
Align flats during assembly



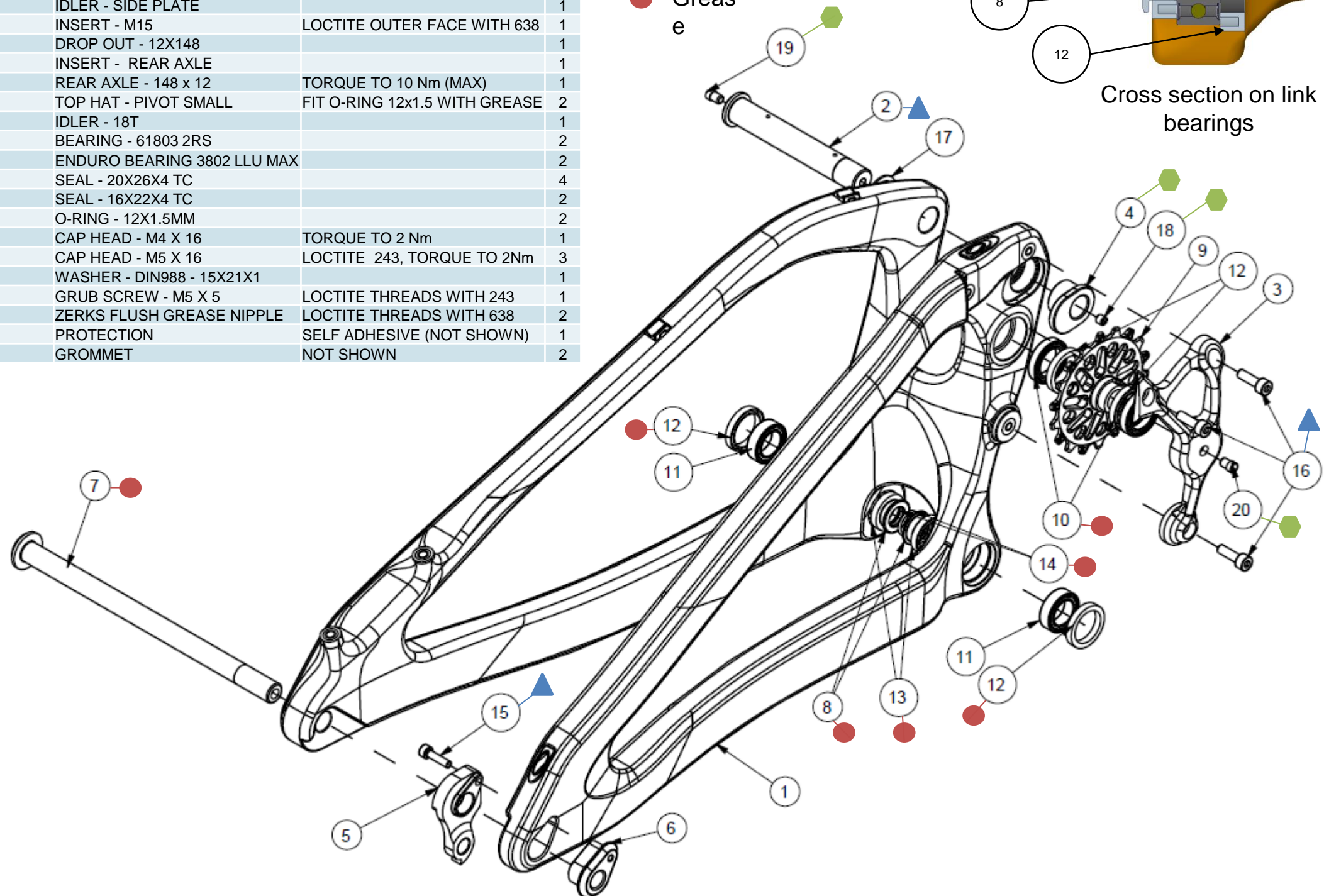
Rear Triangle

ITEM	PART NUMBER	NAME	NOTES	QTY
1	TRP04-S9-014	REAR SWING ARM		1
2	TRP04-S9-029	AXLE - MAIN PIVOT	LOCTITE THREADS WITH 243	1
3	TRP04-D9-007	IDLER - SIDE PLATE		1
4	TRP04-S9-020	INSERT - M15	LOCTITE OUTER FACE WITH 638	1
5	TRP04-D9-008	DROP OUT - 12X148		1
6	TRP04-D9-009	INSERT - REAR AXLE		1
7	FB1890BK001	REAR AXLE - 148 x 12	TORQUE TO 10 Nm (MAX)	1
8	TRP04-F9-012	TOP HAT - PIVOT SMALL	FIT O-RING 12x1.5 WITH GREASE	2
9	TRP04-D9-006	IDLER - 18T		1
10	61803-2RS	BEARING - 61803 2RS		2
11	3802LLUMAX	ENDURO BEARING 3802 LLU MAX		2
12	SEAL - 20X26X4TC	SEAL - 20X26X4 TC		4
13	SEAL - 16X22X4TC	SEAL - 16X22X4 TC		2
14	O-RING - 12x1.5	O-RING - 12X1.5MM		2
15	CAP M4X16	CAP HEAD - M4 X 16	TORQUE TO 2 Nm	1
16	CAP M5X16	CAP HEAD - M5 X 16	LOCTITE 243, TORQUE TO 2Nm	3
17	DIN988 - 15X21X1	WASHER - DIN988 - 15X21X1		1
18	GRUB M5x5	GRUB SCREW - M5 X 5	LOCTITE THREADS WITH 243	1
29	ZERKS	ZERKS FLUSH GREASE NIPPLE	LOCTITE THREADS WITH 638	2
20	TRP04-S9-063	PROTECTION	SELF ADHESIVE (NOT SHOWN)	1
21	TRP04-S9-026	GROMMET	NOT SHOWN	2

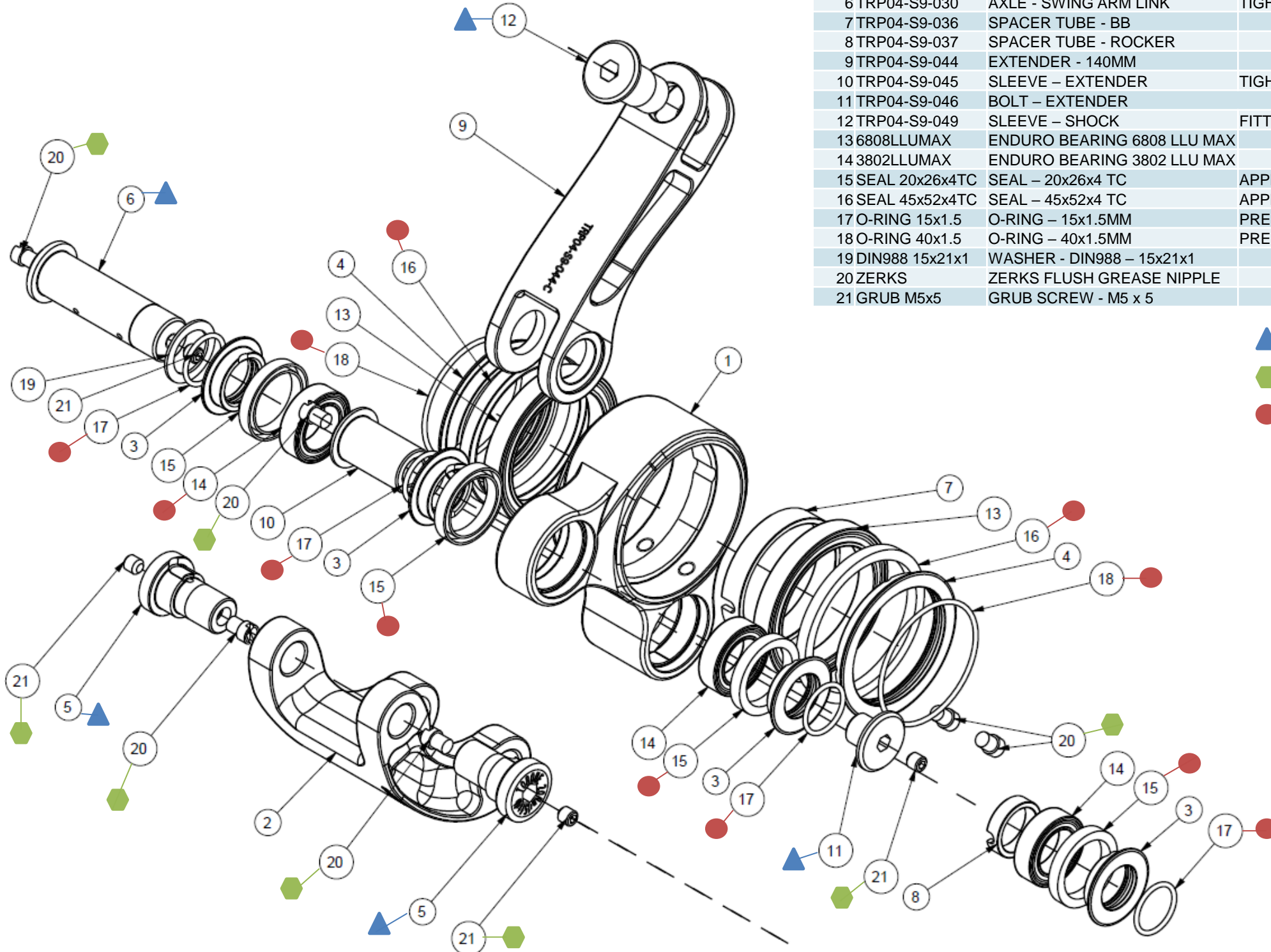
- ▲ Loctite 243
- ◆ Loctite 638
- Grease



Cross section on link bearings



Rocker



ITEM	PART NUMBER	NAME	NOTES	QTY
1	TRP04-S9-016	ROCKER - 140MM		1
2	TRP04-S9-015	LINK - 140MM		1
3	TRP04-F9-011	TOP HAT - PIVOT		4
4	TRP04-F9-013	TOP HAT - BB		2
5	TRP04-S9-019	AXLE BOLT - SWINGARM LINK	TIGHTEN TO 20Nm	2
6	TRP04-S9-030	AXLE - SWING ARM LINK	TIGHTEN TO 30Nm	1
7	TRP04-S9-036	SPACER TUBE - BB		1
8	TRP04-S9-037	SPACER TUBE - ROCKER		1
9	TRP04-S9-044	EXTENDER - 140MM		1
10	TRP04-S9-045	SLEEVE - EXTENDER	TIGHTEN TO 20Nm	1
11	TRP04-S9-046	BOLT - EXTENDER		1
12	TRP04-S9-049	SLEEVE - SHOCK	FITTED FOR TRANSPORT	1
13	6808LLUMAX	ENDURO BEARING 6808 LLU MAX		2
14	3802LLUMAX	ENDURO BEARING 3802 LLU MAX		3
15	SEAL 20x26x4TC	SEAL - 20x26x4 TC	APPLY GREASE TO LIPS	4
16	SEAL 45x52x4TC	SEAL - 45x52x4 TC	APPLY GREASE TO LIPS	2
17	O-RING 15x1.5	O-RING - 15x1.5MM	PREPARE WITH GREASE	4
18	O-RING 40x1.5	O-RING - 40x1.5MM	PREPARE WITH GREASE	2
19	DIN988 15x21x1	WASHER - DIN988 - 15x21x1		1
20	ZERKS	ZERKS FLUSH GREASE NIPPLE		6
21	GRUB M5x5	GRUB SCREW - M5 x 5		4

- ▲ Loctite 243
- Loctite 638
- Grease

