

# Rocky Mountain Maiden Service Instructions

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# Contents

<b>Equipment/Materials</b> .....	4
<b>Assembly Instruction</b> .....	5
1) Front Triangle.....	6
1.2 Front Triangle Collet.....	7
2) Chain-Stay .....	8
2.1 Chain-Stay Bearings .....	8
2.2 Chain-Stay Collet .....	9
3) Seat-Stay Bearings .....	10
4) Top-Link Bearings.....	11
5) Chain-Stay Installation .....	12
6) Top Link Installation .....	14
7) Seat Stay Installation.....	16
7.1 Seat-Stay / Chain-Stay Pivot Assembly .....	16
7.2 Seat-Stay / Top-Link Pivot Assembly.....	18
8) Pivot Torqueing.....	20
9) Bearing Preload Screw Installation .....	21
10) Torque Summary.....	23
11) Plastic Component Installation .....	24
11.1 Di2 Port .....	24
11.2 Fork-Bumpers.....	25
11.3 Shock Fender Installation.....	26
11.4 Chain-Stay Guard Installation .....	28
11.5 Down-Tube Protector Installation .....	29
12) Equalized Wheel Concept .....	30
12.1 Axle, Brake, and Derailleur Hangar Installation .....	30
12.2 Head-Tube Adaptor Installation ( For 26in Wheels Only).....	32

<b>Disassembly Instructions</b> .....	33
1) Disassembly Overview .....	33
2) PipeLock Disassembly .....	34
2.1 Self-Extraction.....	34
2.2 Tool Assisted .....	35
3) Bearing Removal .....	37
4) Flange Race and Collet Removal .....	39

## Equipment/Materials

- Maiden DH Frame Components (See the **Maiden BOM**)
- Torque Wrench
  - o 10mm Allen Key Bit
  - o Shimano Cassette Lock-Ring Tool
- Grease
- Blue Loctite
- 10mm Ball-End Allen Key
- Rocky Mountain Maiden DH Tool Kit
  - o 6806 Bearing Press
  - o 6804 Bearing Press
  - o M15 PipeLock Removal Tool

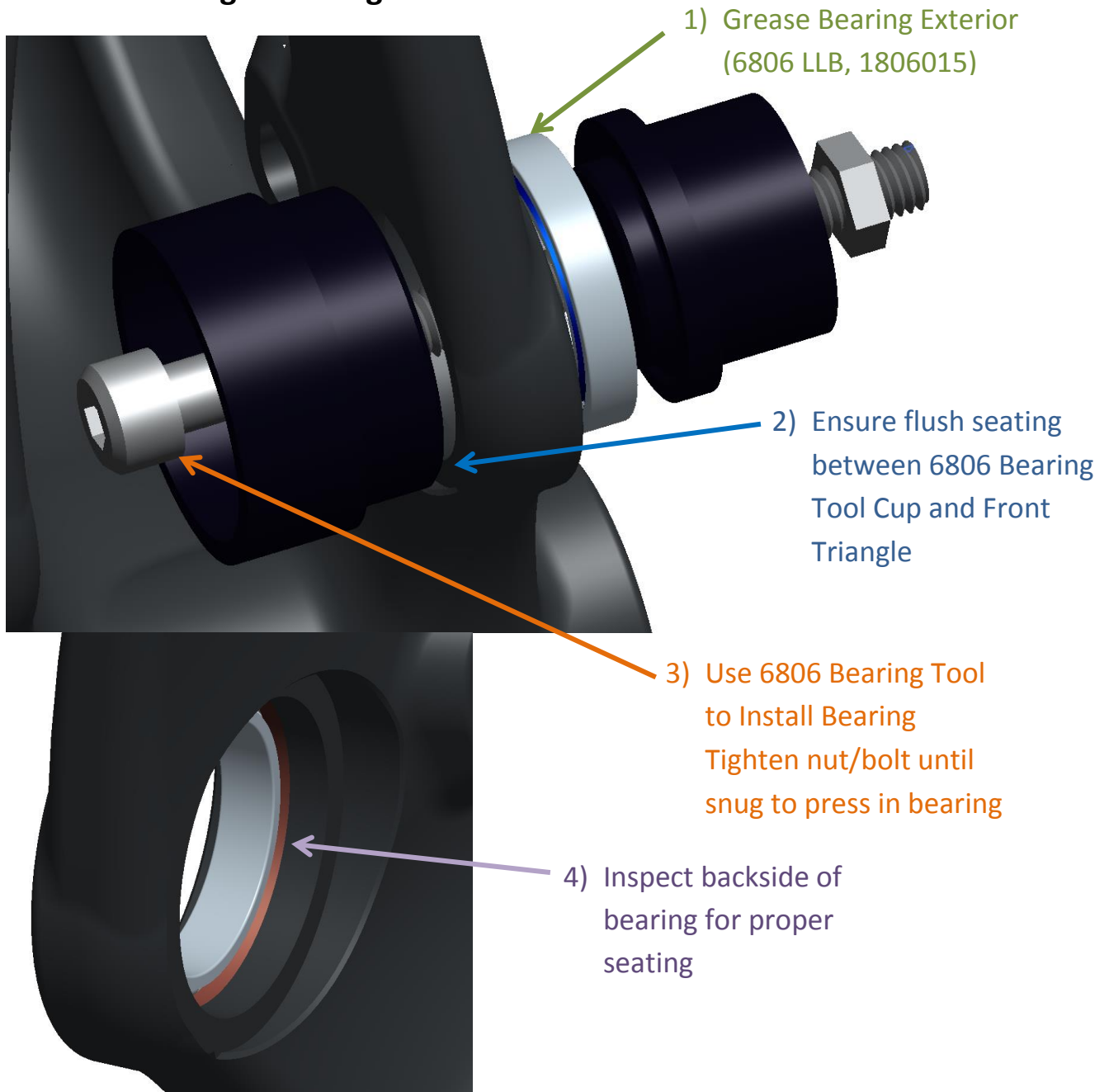
# Assembly Instructions

## Assembly Notes:

- 1) All threads, axles, shafts, and bearing outer-races are to be greased. Add grease to these components before installation
- 2) **DO NOT Loctite/Threadlock** components unless specified in this guide
- 3) When initially installing threaded components, do them all hand tight. A final torqueing procedure is at the end of this guide

# 1) Front Triangle

## 1.1 Front Triangle Bearings

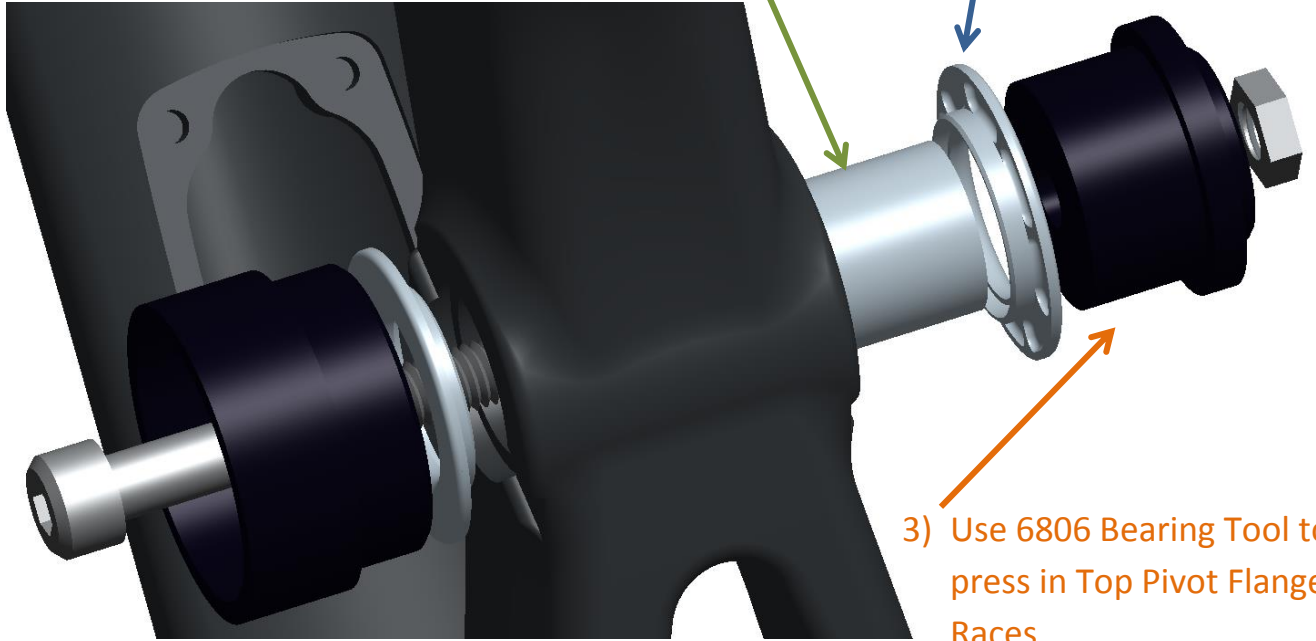


5) Repeat steps 1 – 4 for other side of front triangle

## 1.2 Front Triangle Collet

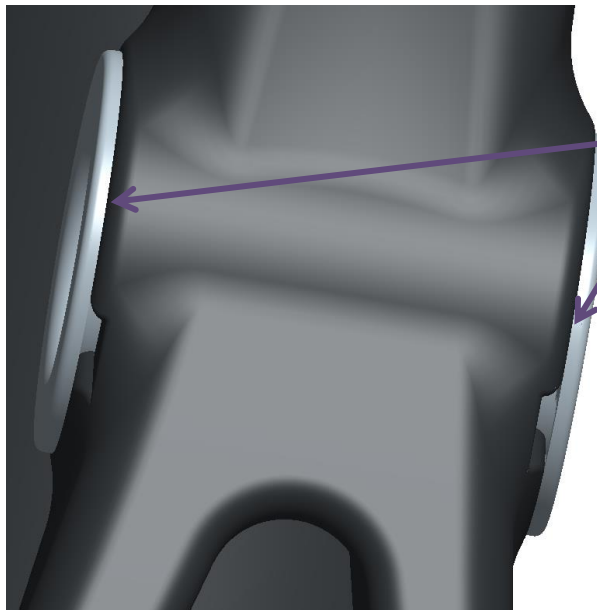
1) Slide Top Pivot Collet (1094011) into frame

2) Press in Top Pivot Flange Races (1806020) by hand



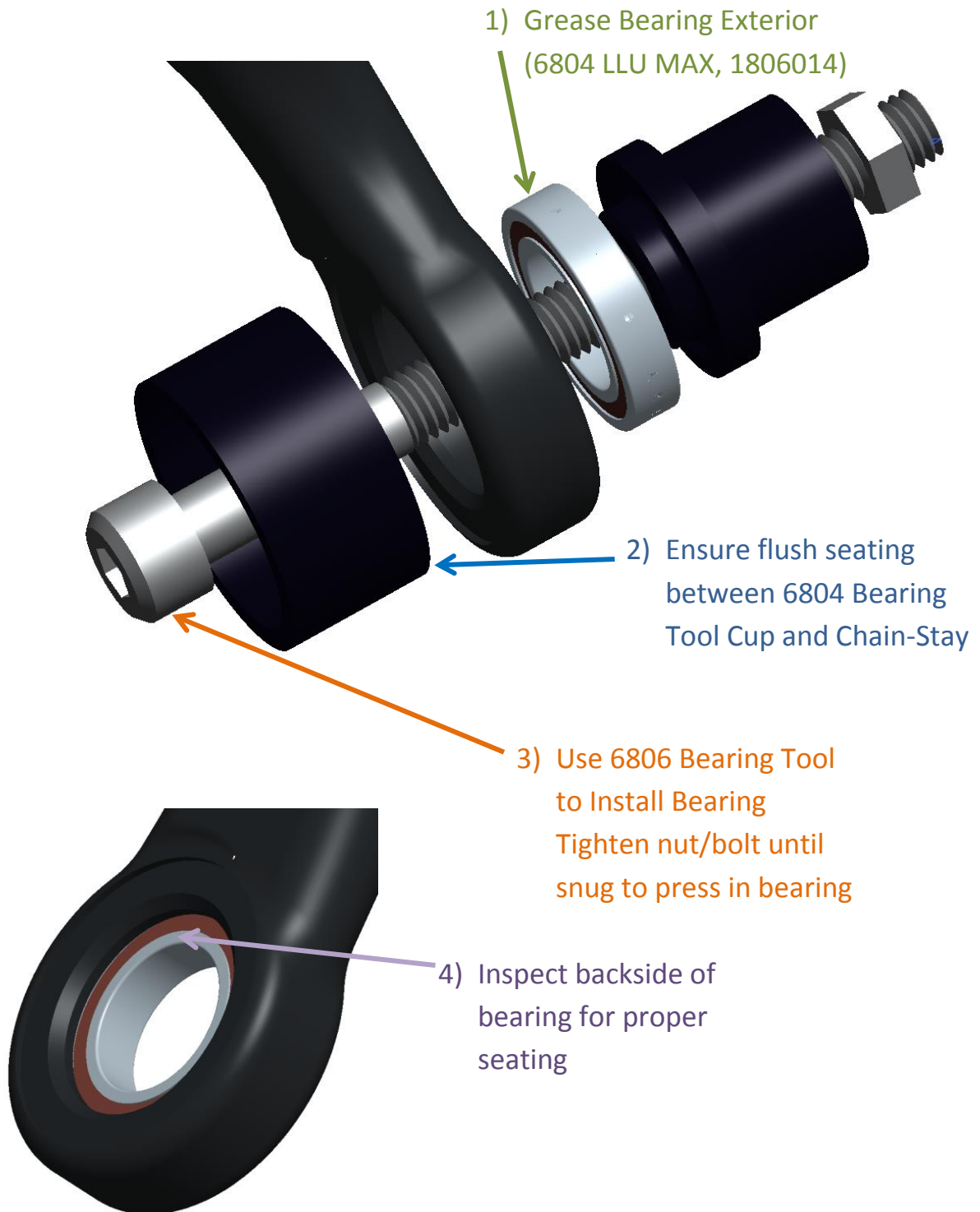
3) Use 6806 Bearing Tool to press in Top Pivot Flange Races

4) Inspect Top Pivot Flange Races to ensure they are flush with Front-Triangle



## 2) Chain-Stay

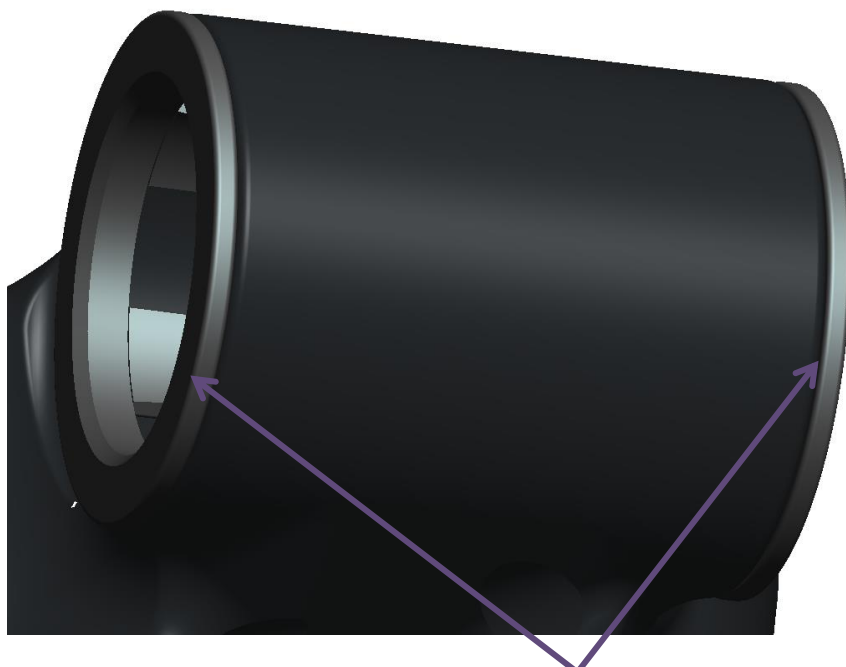
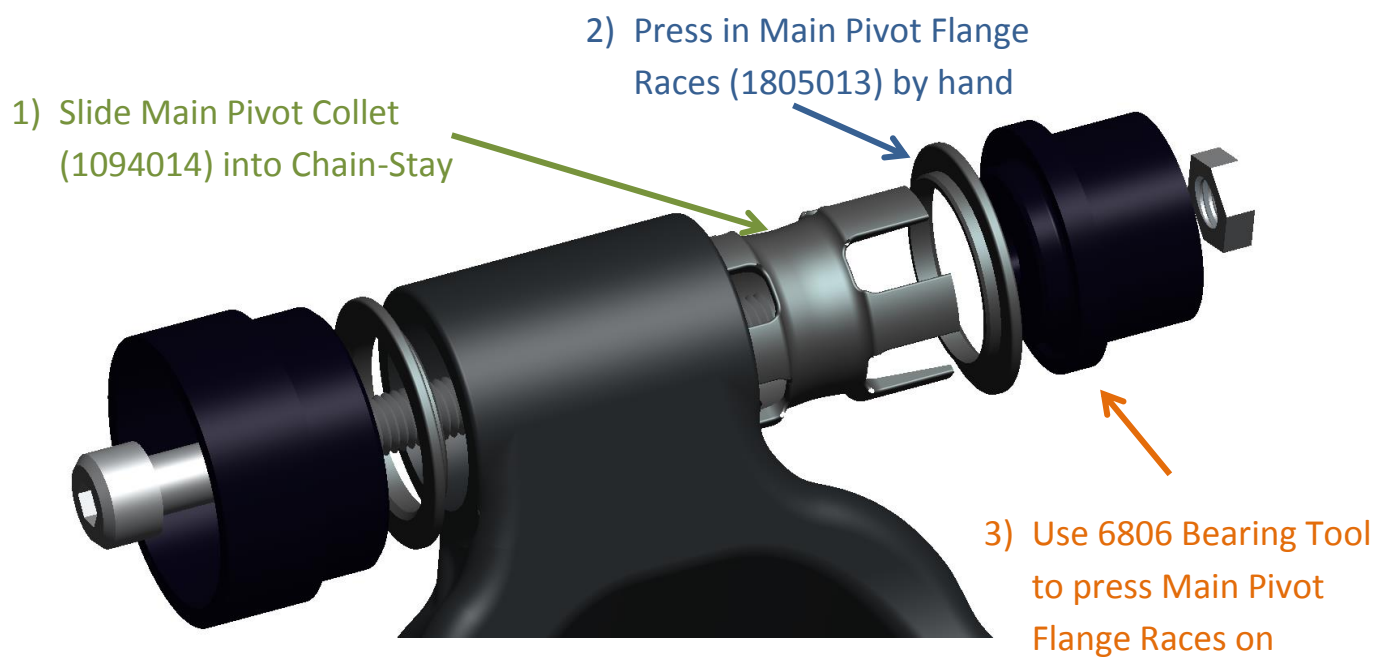
### 2.1 Chain-Stay Bearings



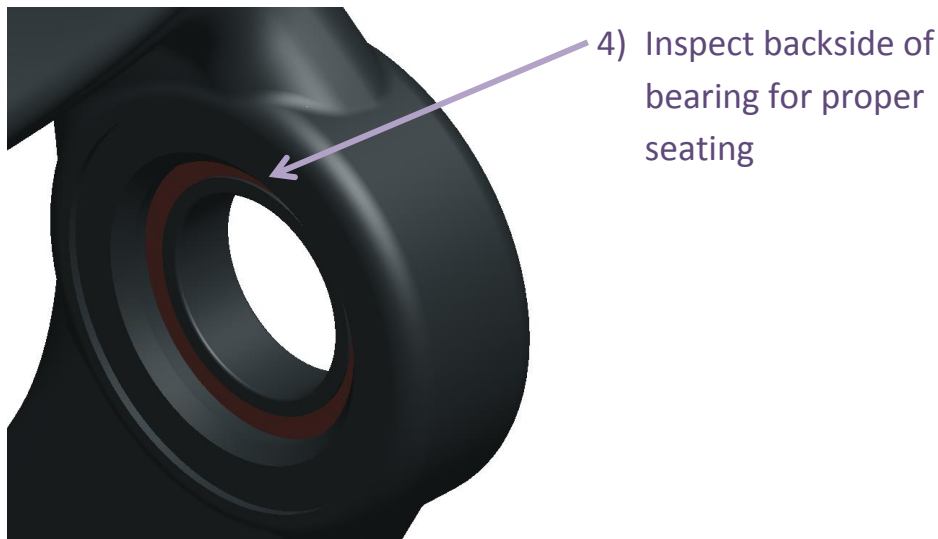
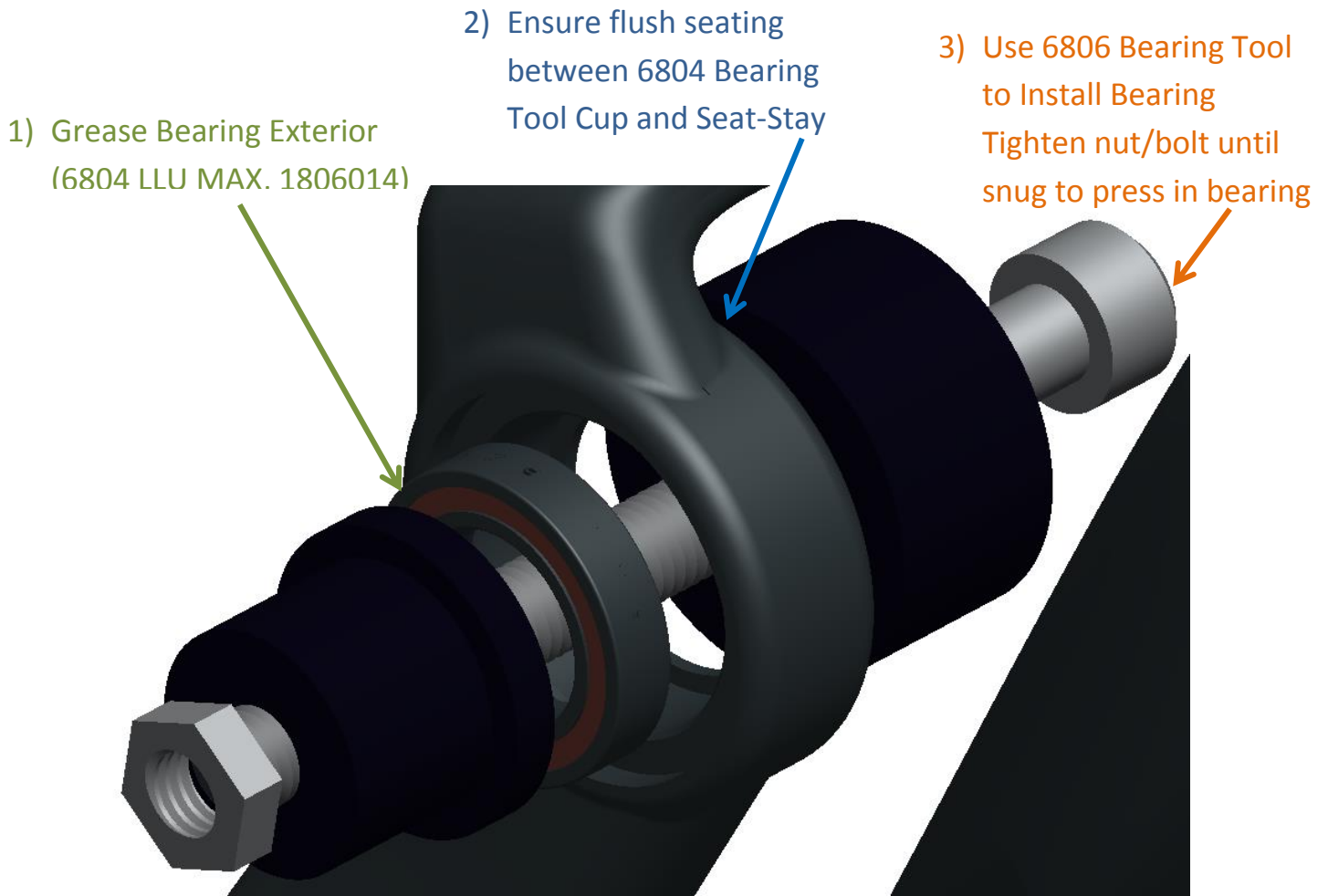
5) Repeat steps 1 – 4 for other side of Chain-Stay



## 2.2 Chain-Stay Collet



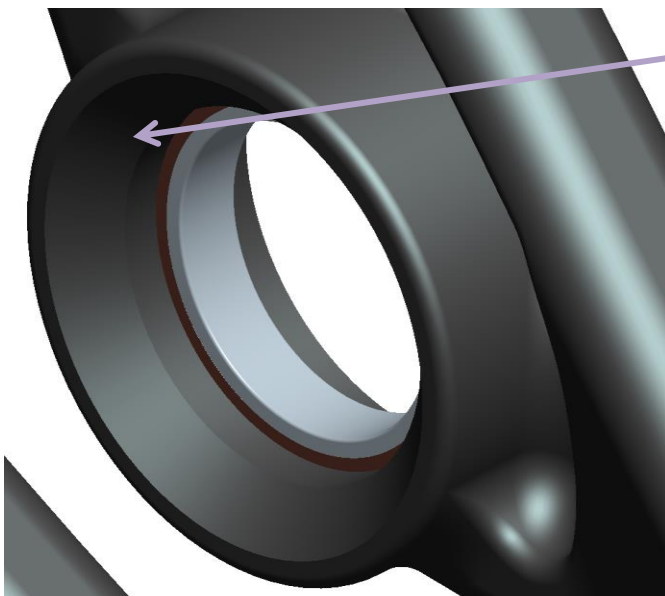
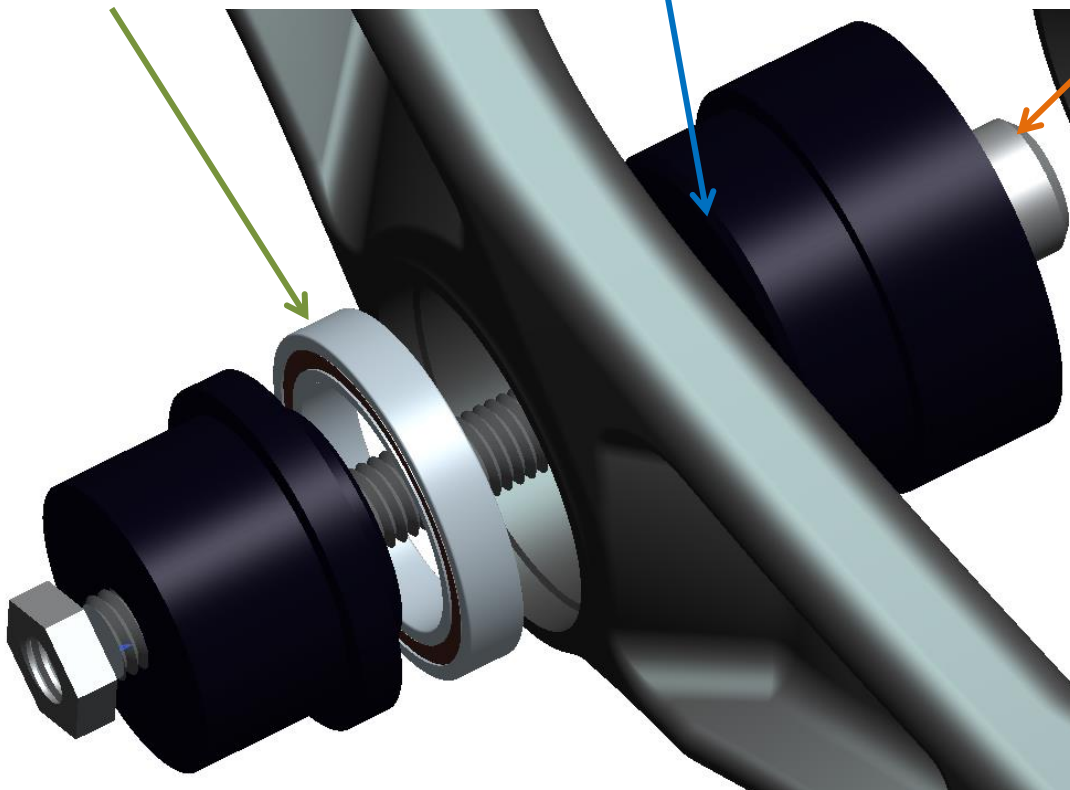
### 3) Seat-Stay Bearings



5) Repeat steps 1 – 4 for other side of Seat-Stay

## 4) Top-Link Bearings

- 1) Grease Bearing Exterior (6806 LLU MAX, 1806016)
- 2) Ensure flush seating between 6806 Bearing Tool Cup and Front Triangle
- 3) Use 6806 Bearing Tool to Install Bearing Tighten nut/bolt until snug to press in bearing

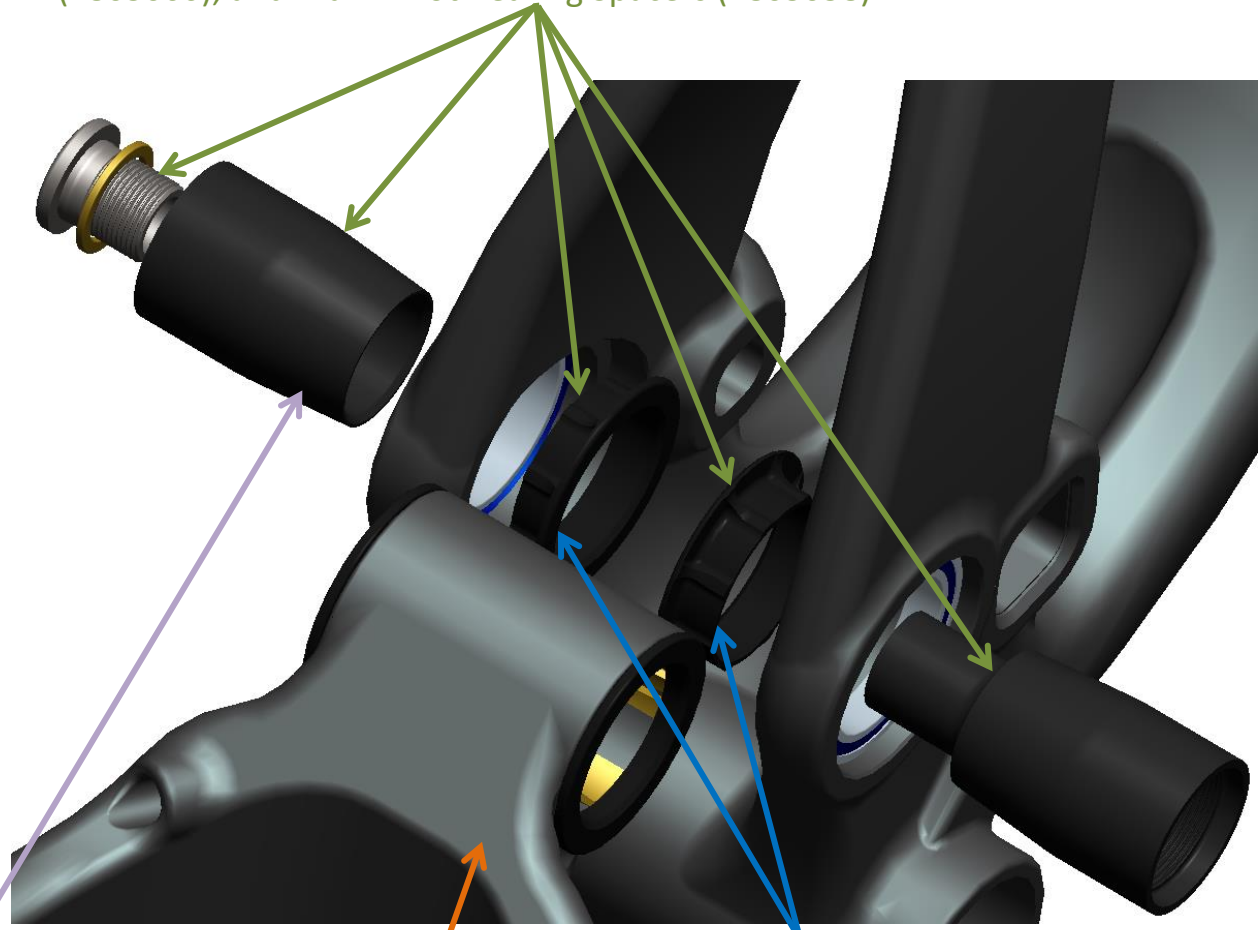


- 4) Inspect backside of bearing for proper seating

- 5) Repeat steps 1 – 4 for other side of front triangle

## 5) Chain-Stay Installation

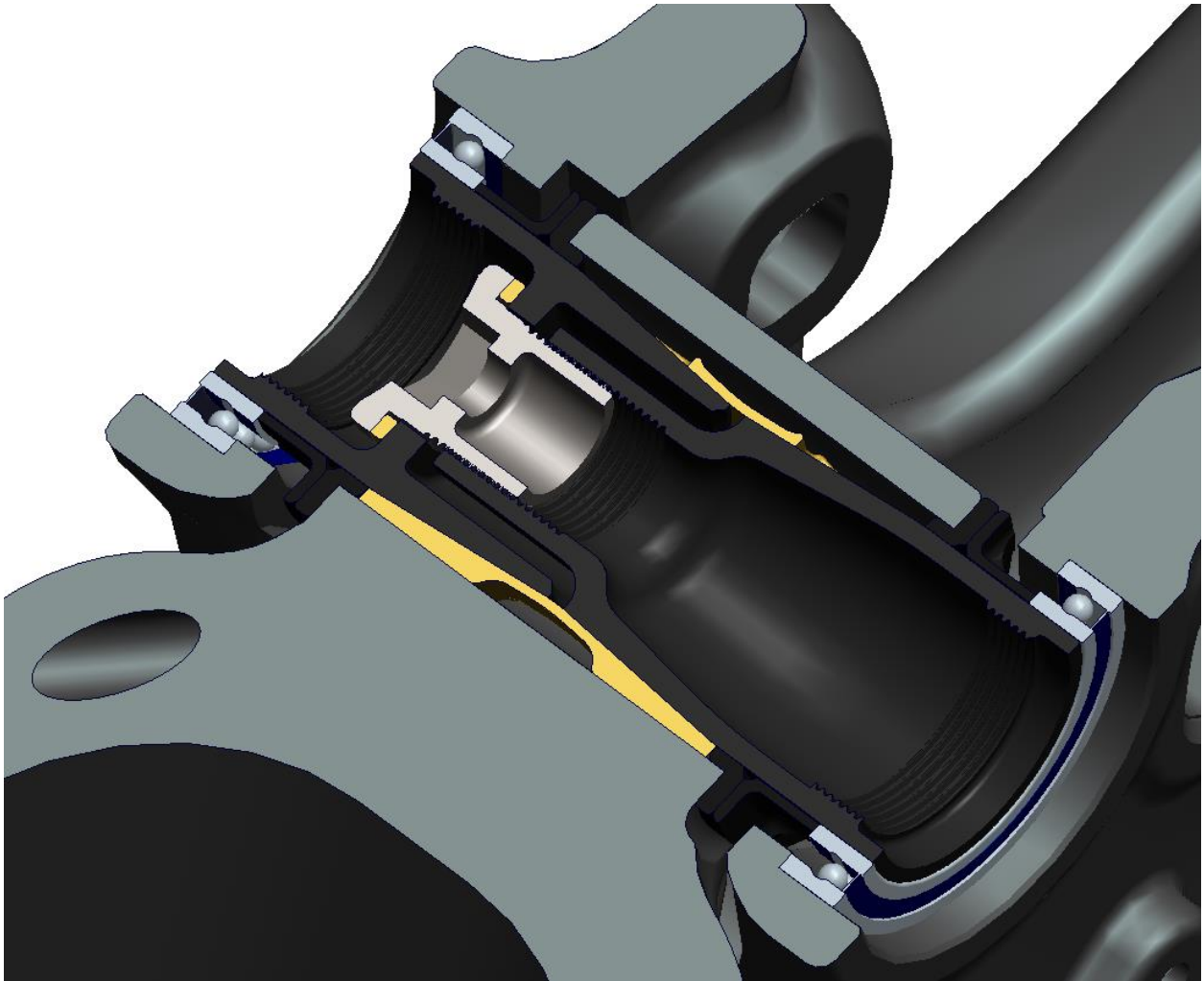
- 1) Grease PipeLock Axles (194015 & 194016), Bolt (1805066), and Main Pivot Bearing Spacers (1805058)



- 4) Install Non-Drive-Side PipeLock Axle (1094016), Brass Washer (1806012), and Bolt (1805066)  
Thread the bolt in 3 turns

- 3) Slide Chain-Stay assembly in to Front-Triangle  
Install Drive-Side PipeLock Axle (1094015) (threaded) to hold assembly in place

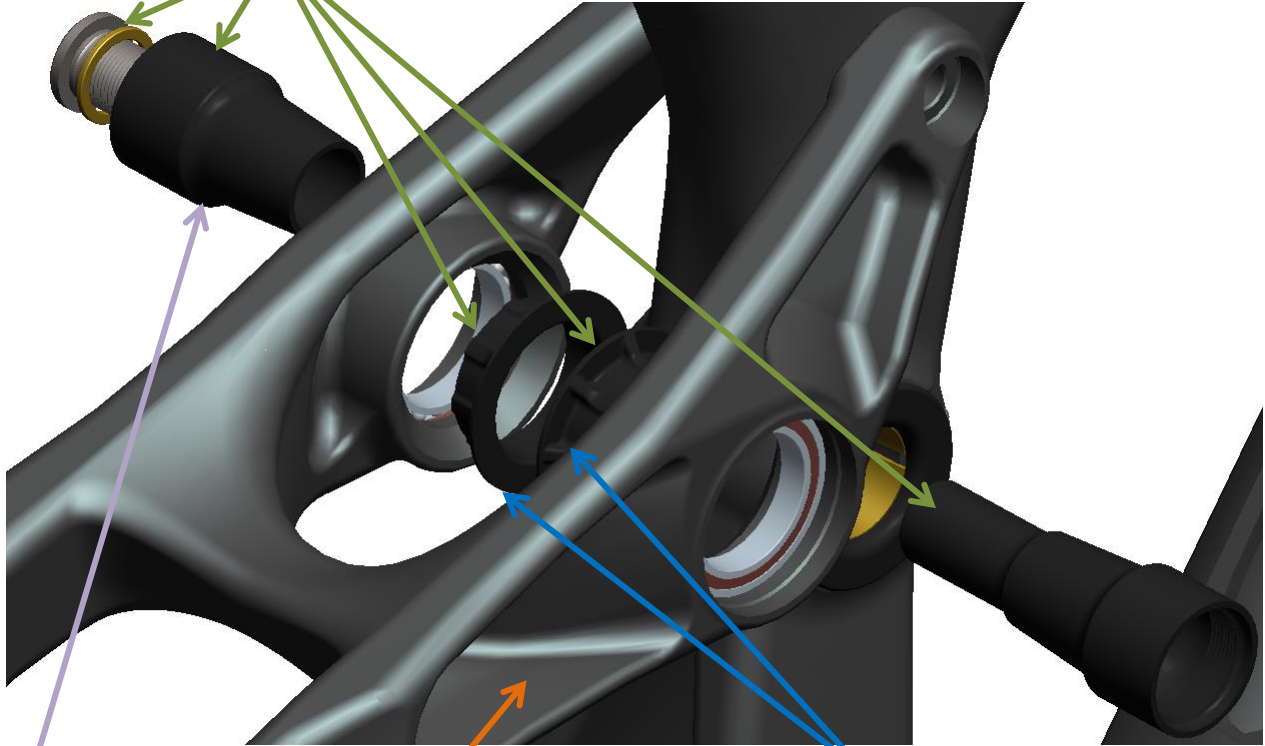
- 2) Place Main Pivot Bearing Spacers (1805058) (Short) against Front-Triangle Bearings, as shown (narrow face against bearing inner-race)  
Use grease to secure spacers against bearings



Main Pivot PipeLock Cross-Section

## 6) Top Link Installation

- 1) Grease PipeLock Axles (196056 & 196057), Bolt (1805066), and Top Pivot Bearing Spacers (1806067)

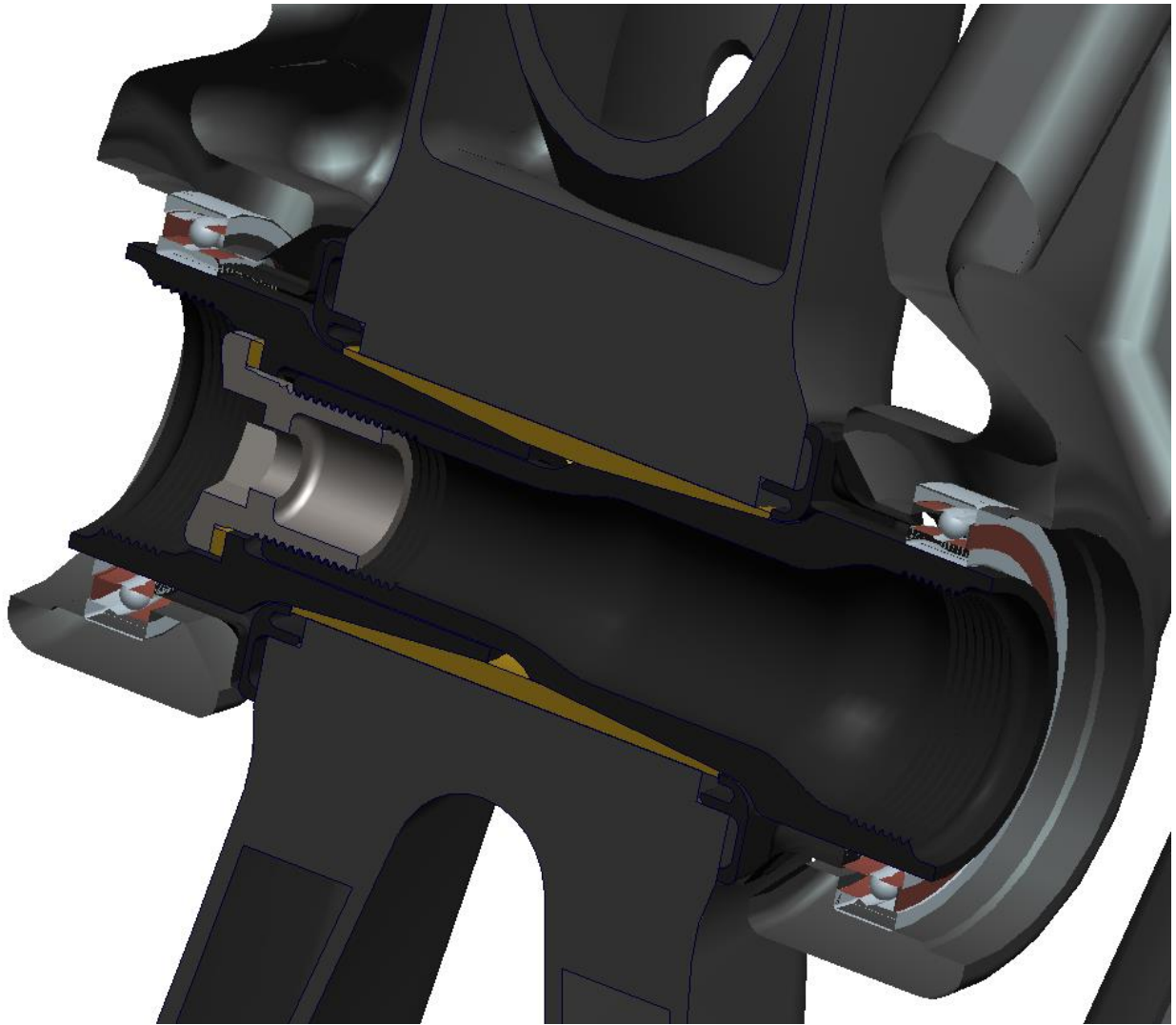


- 4) Install Non-Drive-Side PipeLock Axle (1096057), Brass Washer (1806012), and Bolt (1805066)  
Thread the bolt in 3 turns.

- 3) Slide Top-Link assembly Around Front-Triangle. Link should slide over Front Triangle, and Top Pivot Bearing Spacers (1806067) should sit snugly against Top Pivot Flange Races (1806020)  
Install Drive-Side PipeLock Axle (1096056) (threaded) to hold assembly in place

- 2) Place Top Pivot Bearing Spacers (1806067) (Tall) against Top-Link Bearings, as shown (narrow face against bearing inner-race)  
Use grease to secure spacers





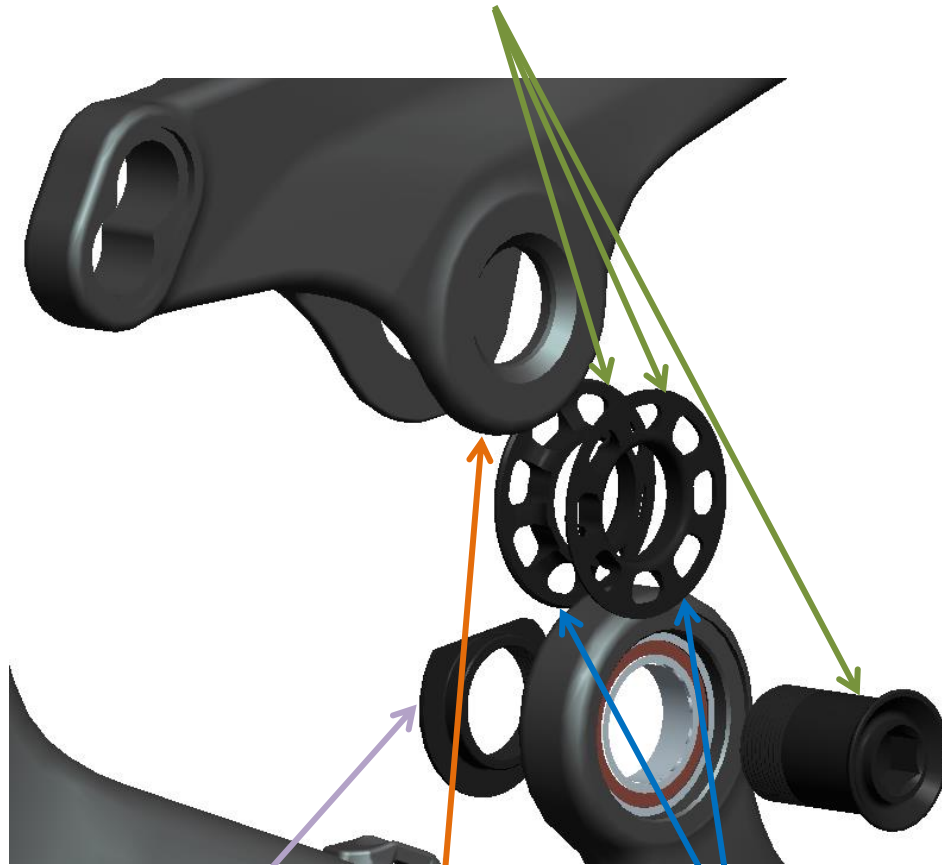
Top Pivot PipeLock Cross-Section

## 7) Seat Stay Installation

### 7.1 Seat-Stay / Chain-Stay Pivot Assembly

**Note:** Only Non-Drive-Side is shown for image clarity. Steps should be applied to both Drive and Non-Drive Sides simultaneously.

- 1) Grease Counter Sunk Thru Bolts (2 x 1804009), and Rear Pivot Bearing Spacers (4 x 1806019)



- 4) Install Chain-Stay Clevis Nut (1805028) by seating it against the keyed interface

Thread the Thru Bolt into Clevis Nut 3 turns

- 3) Slide Seat-Stay clevises around Chain-Stay Bearings

Install Counter Sunk Thru Bolts (1804009) to hold assembly in place

- 2) Place Rear Pivot Bearing Spacers (1806019) against Chain-Stay Bearings, as shown (narrow face against bearing inner-races)

Use grease to secure spacers against bearings





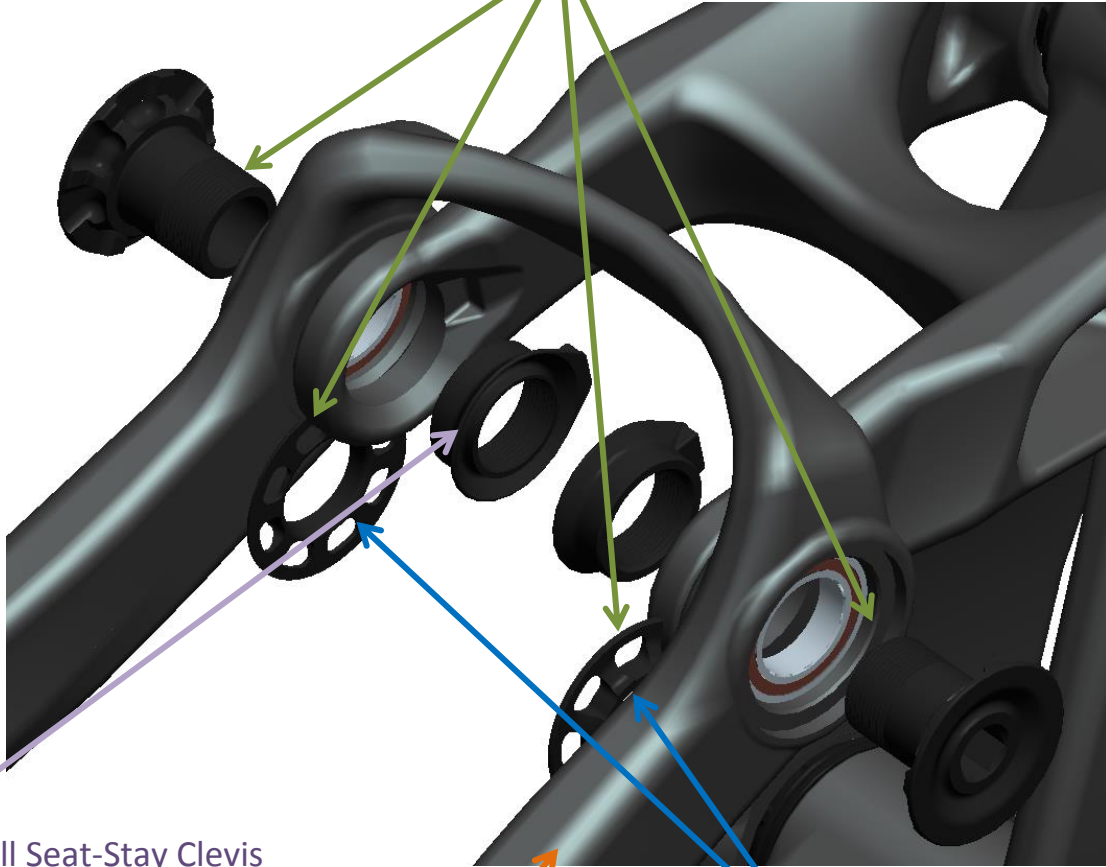
Above is an exploded view of both Seat-Stay / Chain-Stay Pivots. Because both the Chain-Stay and Seat-Stay are one piece, these two pivots must be assembled simultaneously.



Seat-Stay / Chain Stay Pivot Cross-Section

## 7.2 Seat-Stay / Top-Link Pivot Assembly

- 1) Grease Flat Head Thru Bolts (1806017), Bolt (1805066) and Rear Pivot Bearing Spacers (1806019)

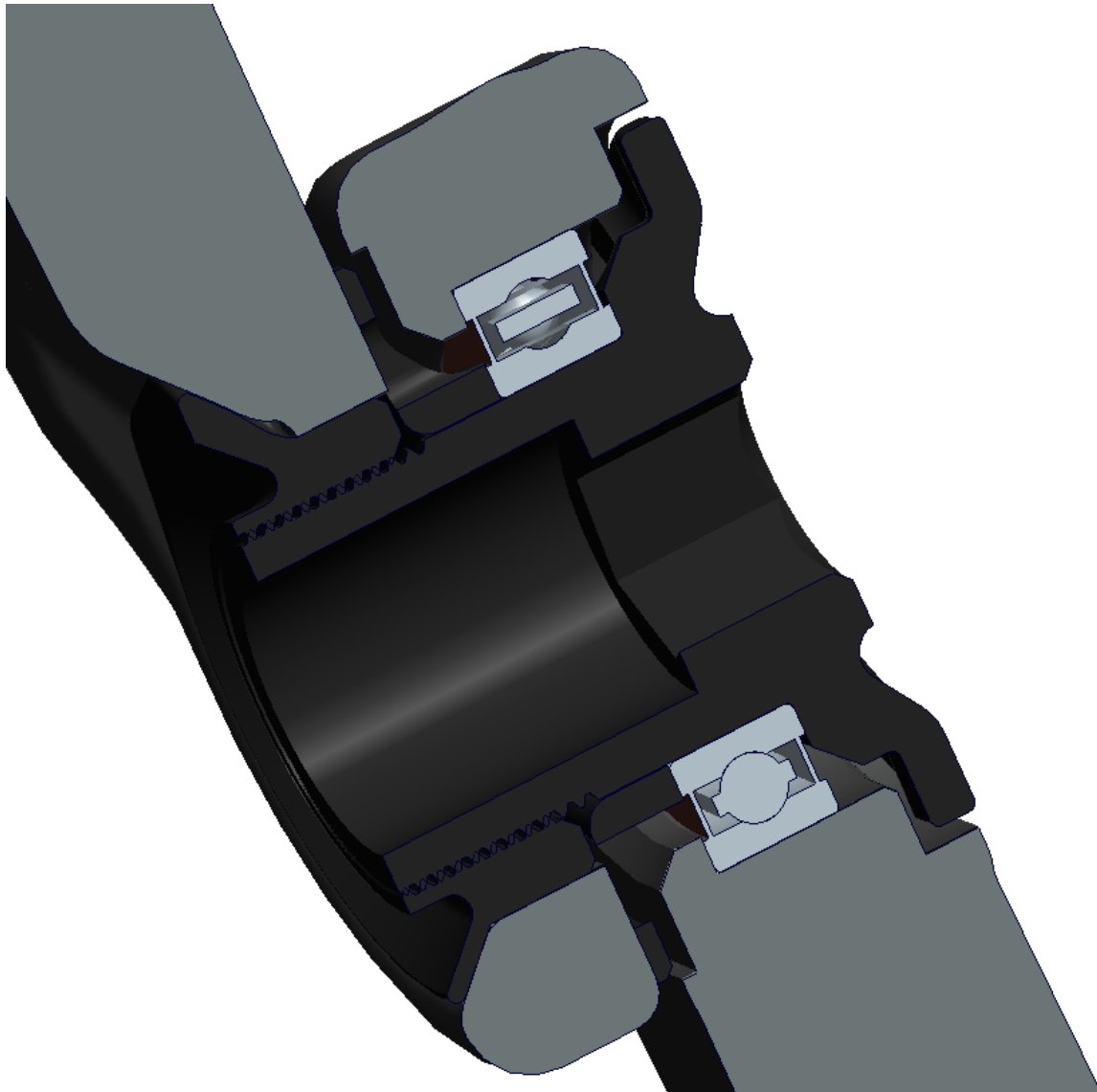


- 4) Install Seat-Stay Clevis Nut (1805067) by seating it against the keyed interface

Thread the Thru Bolt into Clevis Nut 3 turns

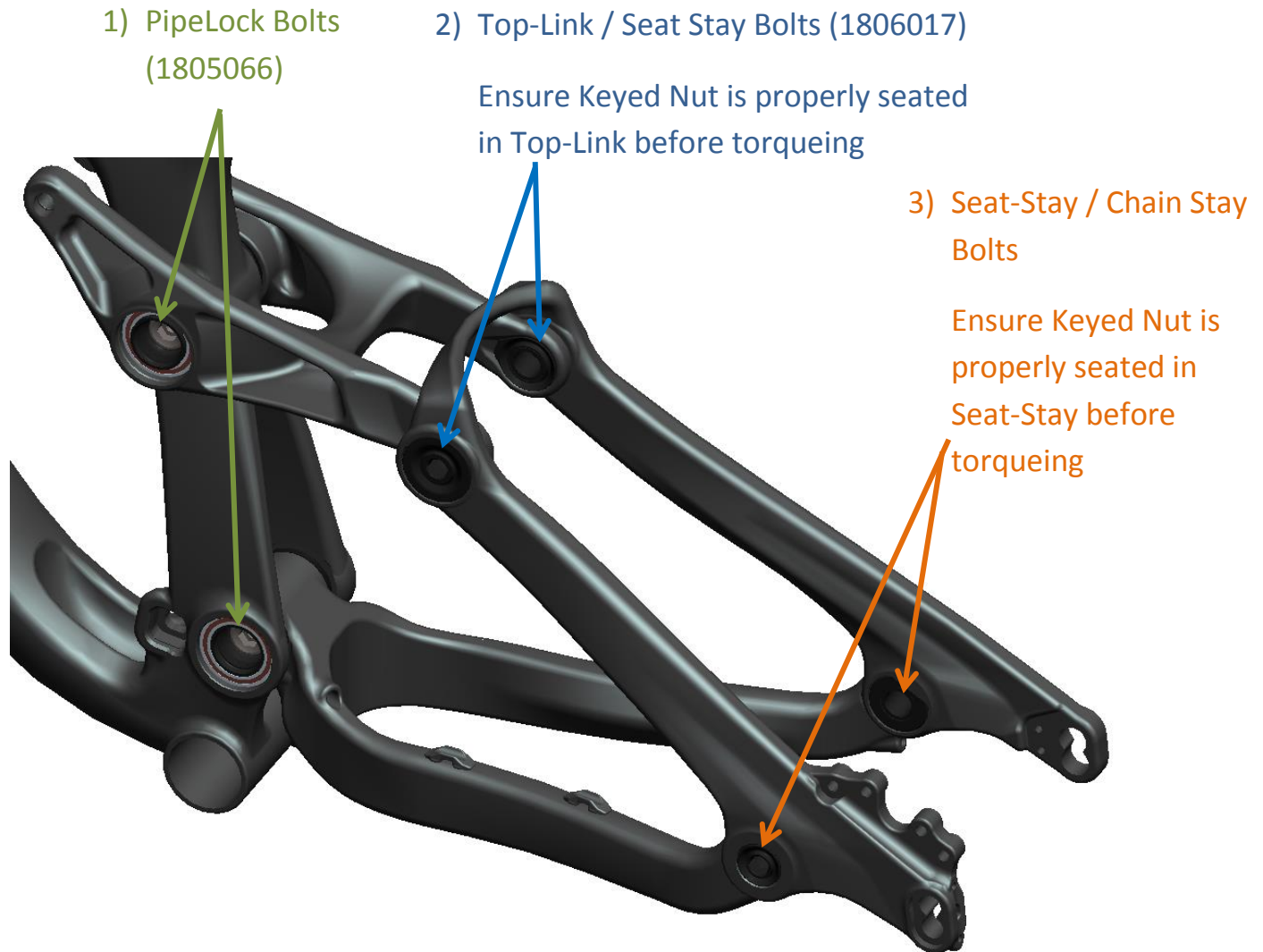
- 3) Slide Seat-Stay around Top Link  
Install Flat Head Thru Bolts (1806017) to hold assembly in place

- 2) Place Rear Pivot Bearing Spacers (1806019) against Seat-Stay Bearings, as shown (narrow face against bearing inner-races)  
Use grease to secure spacers against bearings



Seat-Stay / Top-Link Pivot Cross-Section

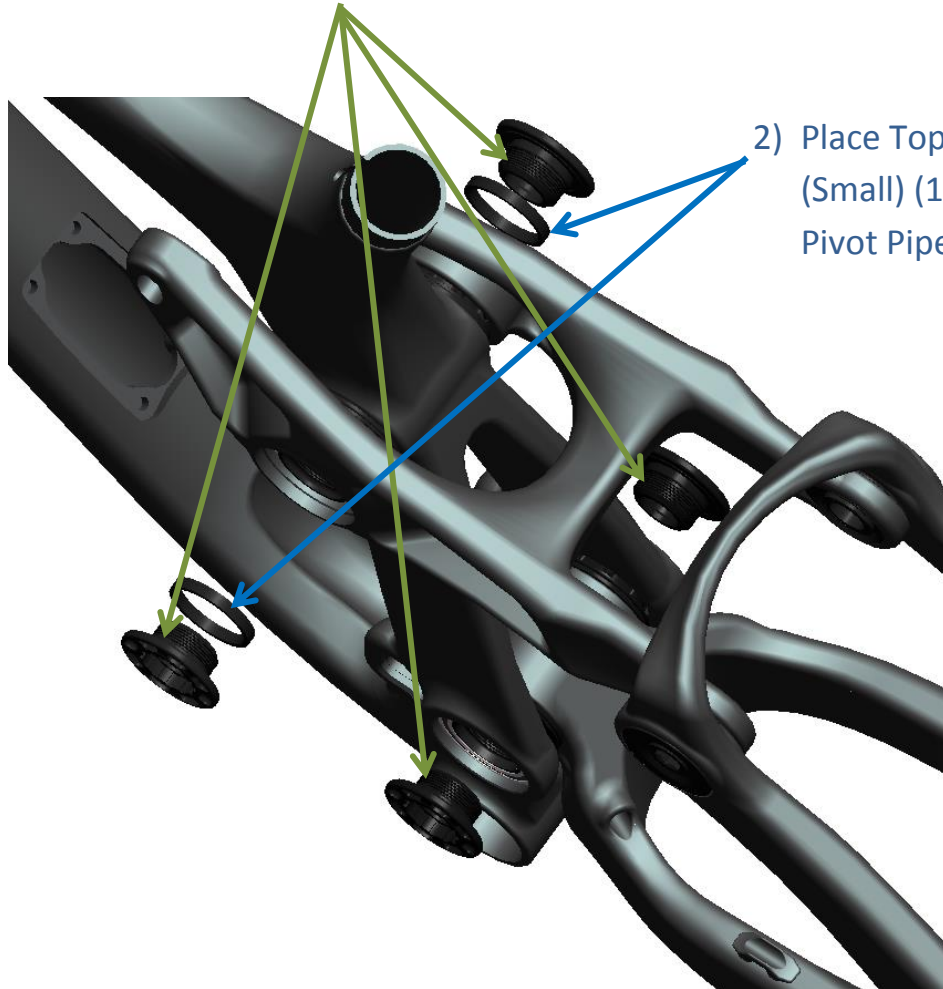
## 8) Pivot Torqueing



Step	Part Description	Part Number	Tool	Torque		
				Kg-cm	Nm	Lbin
1)	PipeLock Bolts	1805066	10mm Allen Key	570	55.9	495
2)	Top-Link/Seat - Stay Bolts	1806017		280	27.4	243
3)	Seat-Stay/Chain-Stay Bolts	1804009		200	19.6	174

## 9) Bearing Preload Screw Installation

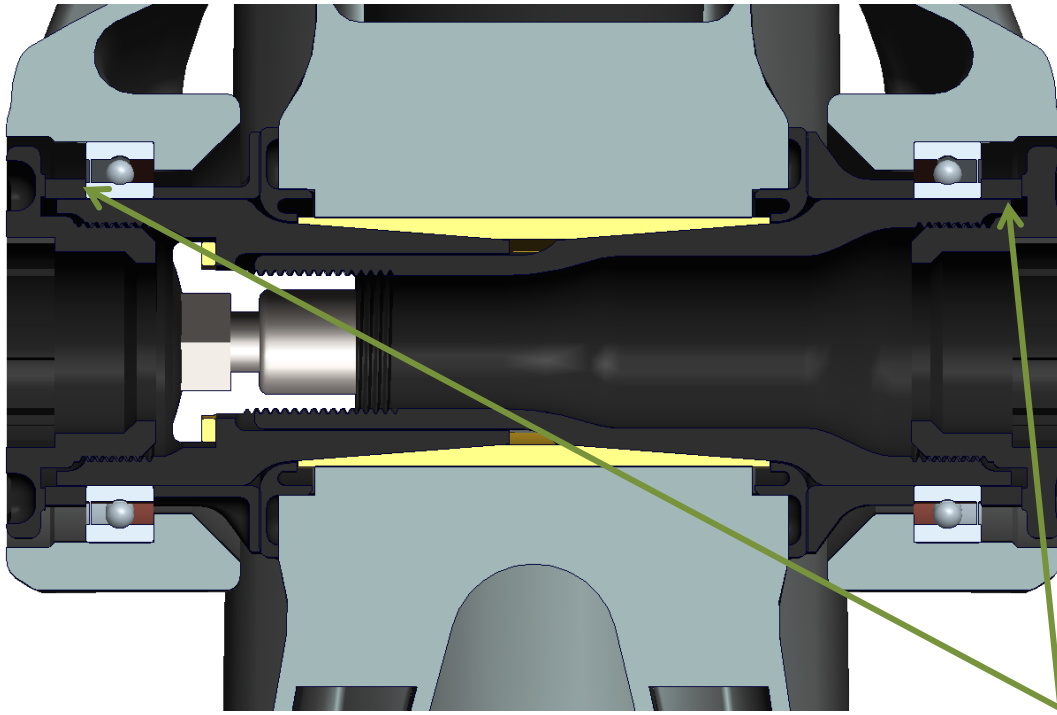
1) Grease bearing Main Pivot Bearing Locknut Threads (1095078)



2) Place Top Pivot Spacers (Small) (1806021) on Top Pivot Pipe Lock Axles

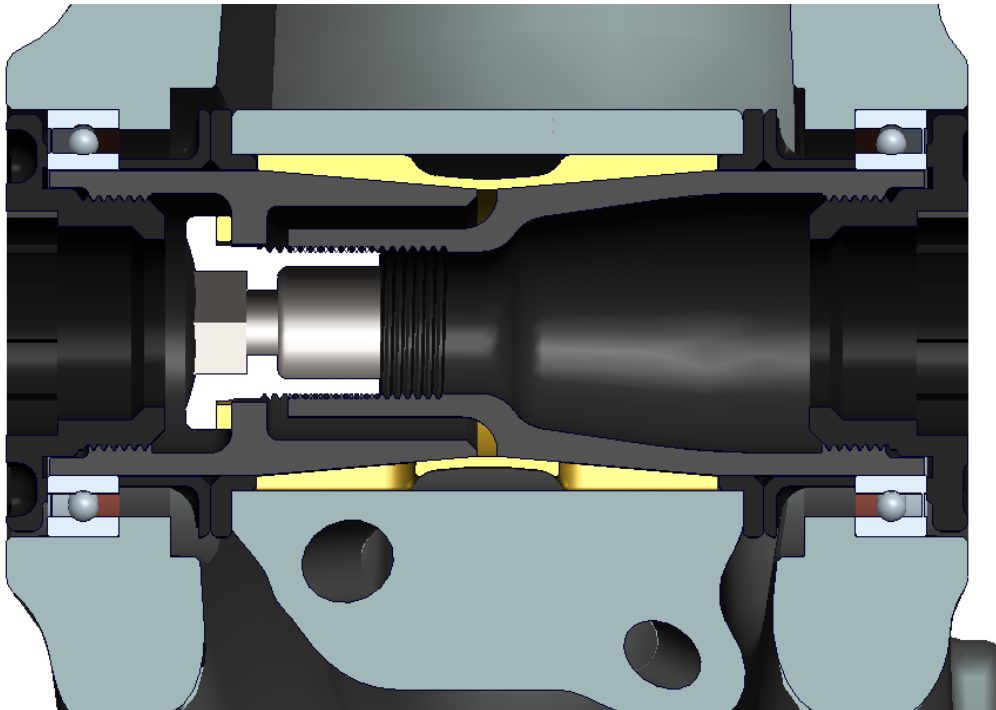
3) Thread in Locknuts (1095078) by hand, and then torque.

Part Description	Part Number	Tool	Torque		
			Kg-cm	Nm	Lb-in
Main Pivot Bearing Locknuts	1095078	Shimano Cassette Tool	276	27.1	240



Top Pivot Cross-Section after Lock-Nut Installation

Note Spacers on  
PipeLock Axle



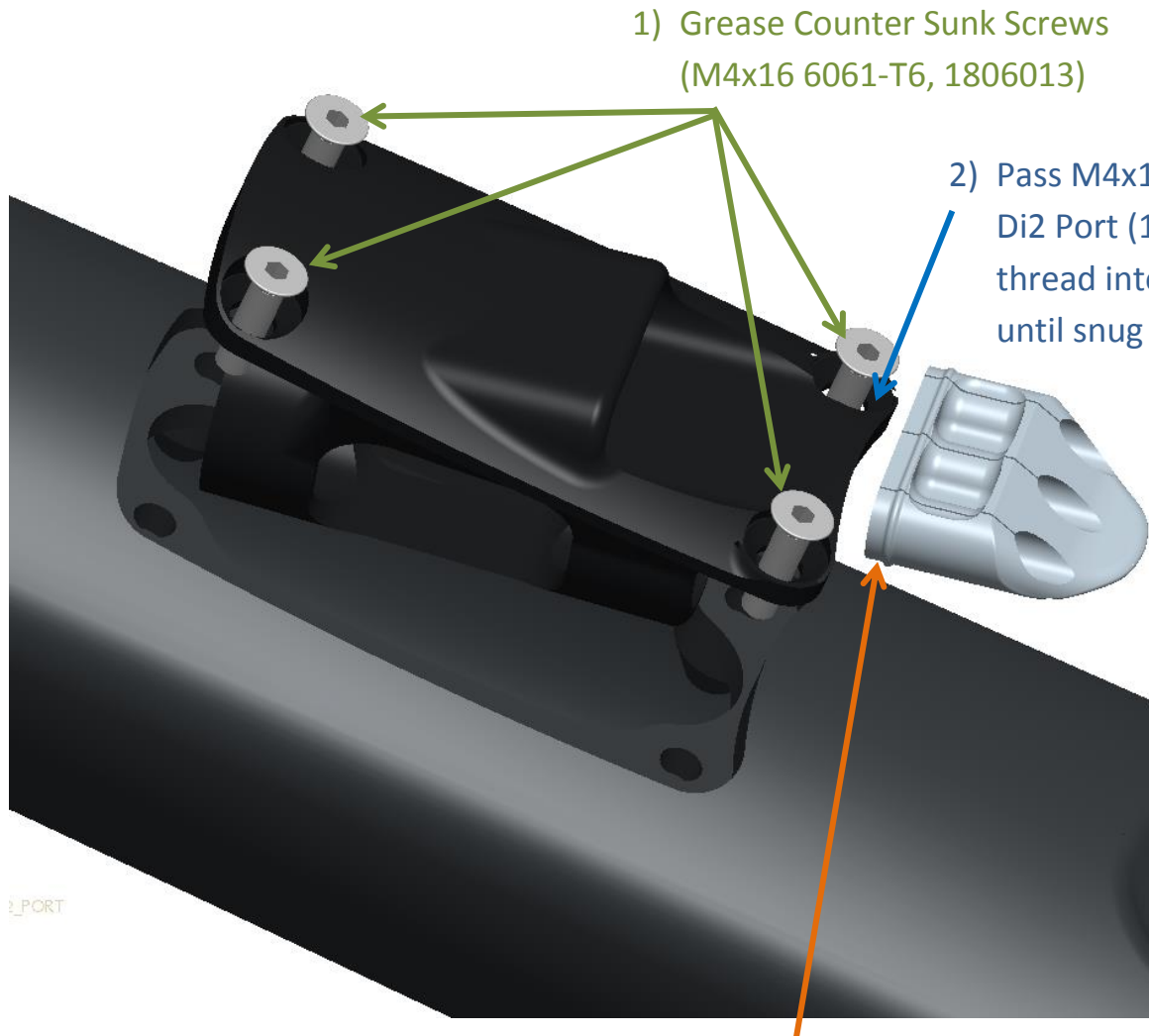
Main Pivot Cross-Section after Lock-Nut Installation

## 10) Torque Summary

Description	Part #	Location	Tool	Torque		
				Kg-cm	Nm	Lb-in
PipeLock Screw	1805066	Main Pivot	10mm Allen Key	570	55.9	495
		Top-Link Pivot				
Top-Link / Seat-Stay Bolt	1806017	Top Link / Seat-Stay Pivot	10mm Allen Key	280	27.4	243
Seat –Stay / Chain-Stay Bolt	1804009	Seat-Stay / Chain Stay Pivot	10mm Allen Key	200	19.6	174
Bearing Lock Screws	1095078	Main Pivot	Cassette Tool	276	27.1	240
		Top Link Pivot				
Shock Bolts	1804011 & 1805068	Upper & Lower Shock Mount	6mm Allen Key	150	14.7	130

# 11) Plastic Component Installation

## 11.1 Di2 Port



1) Grease Counter Sunk Screws  
(M4x16 6061-T6, 1806013)

2) Pass M4x16 Screws through  
Di2 Port (1805056) holes,  
thread into Front Triangle  
until snug

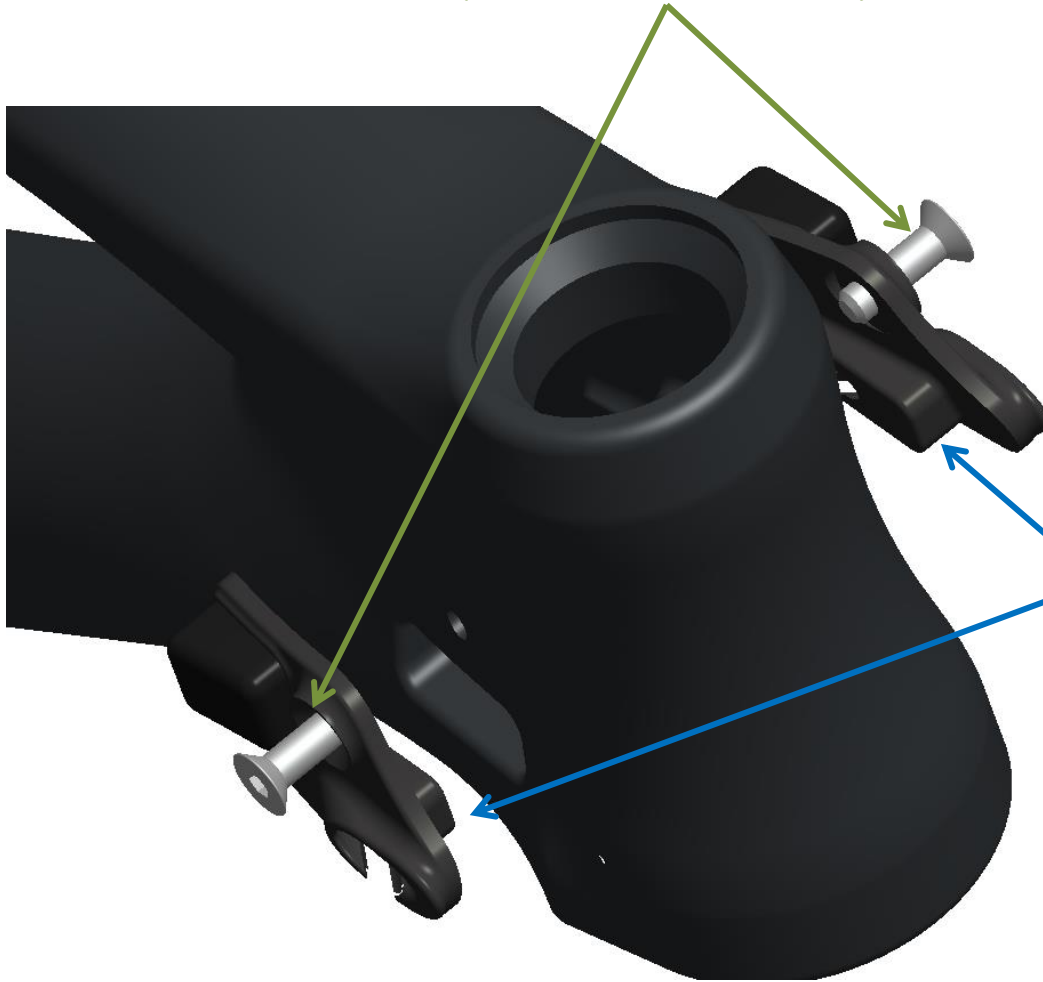
3) Slip Cable 3-Hole  
Rubber Plug (195059)  
into Di2 Port

Di2\_PORT



## 11.2 Fork-Bumpers

1) Grease Counter Sunk Screws  
(M6x20 6061-T6, 1806071)



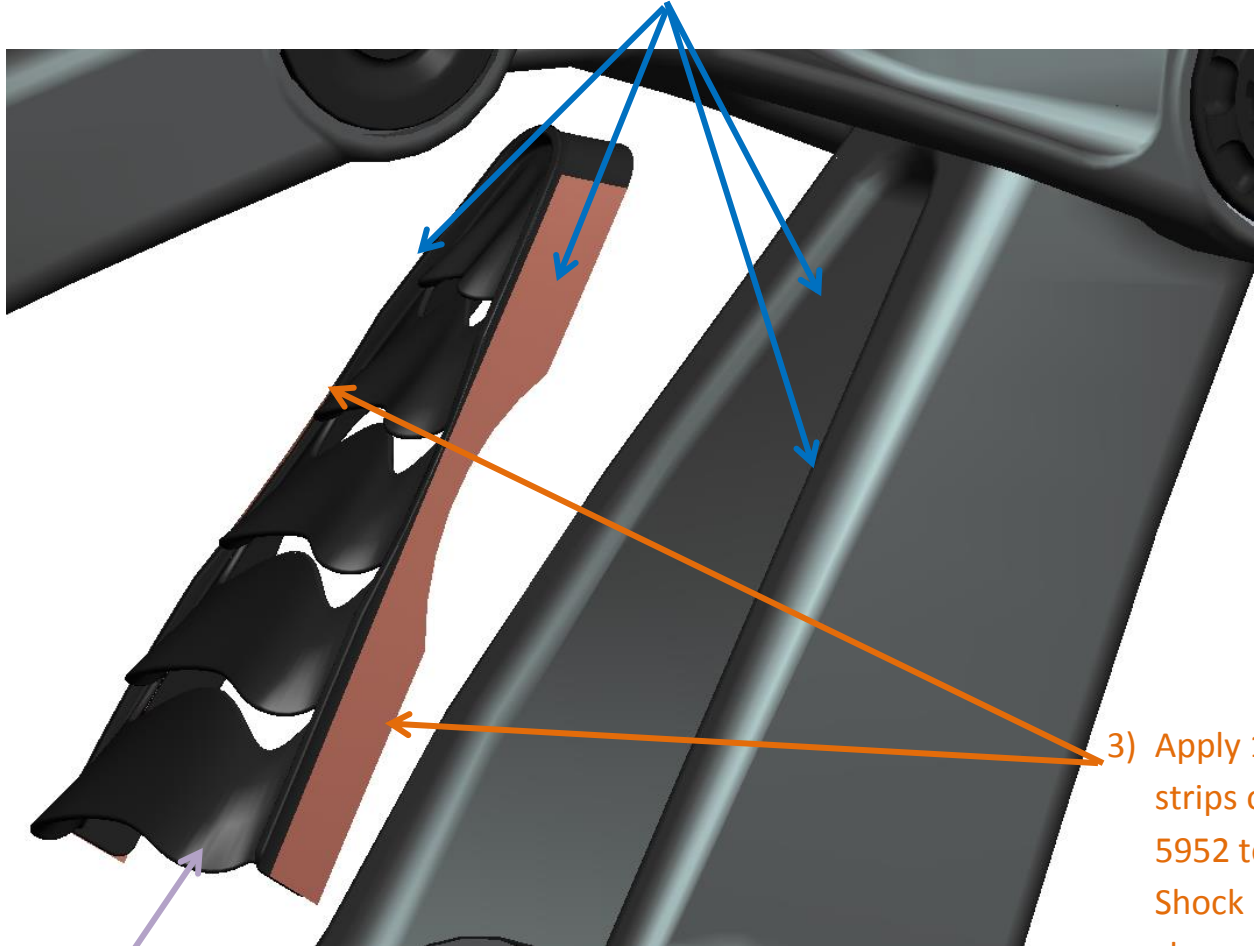
2) Slip Right & Left  
Fork Bumpers  
(1805050 &  
1805051) into  
Front-Triangle

3) Pass screws through fork  
bumpers and thread into  
frame until snug

### 11.3 Shock Fender Installation

1) Remove shock and rear wheel from frame if installed

2) Clean Shock Fender (1635000) and Front Triangle mating surfaces with Isopropyl Alcohol

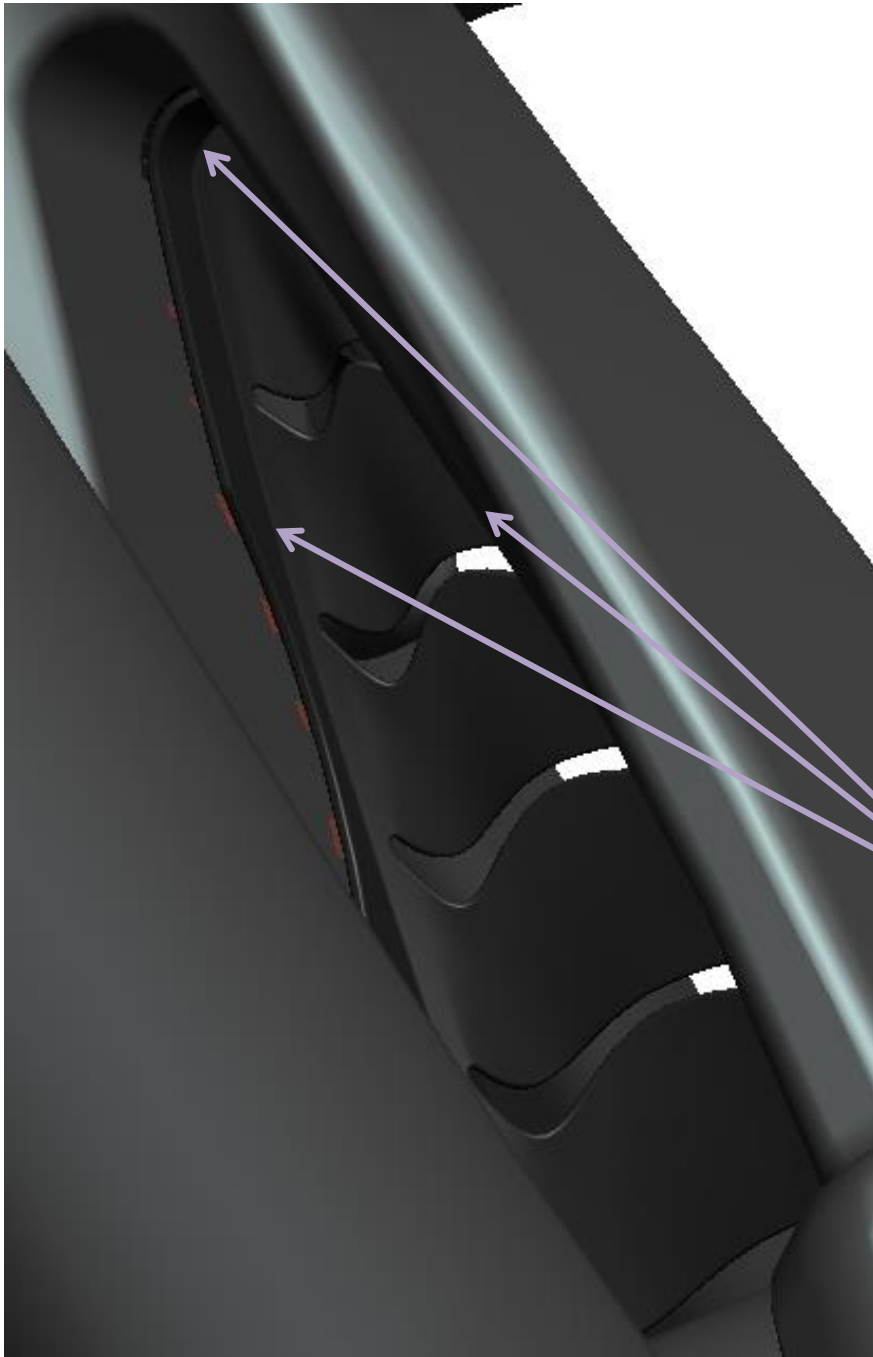


3) Apply 1cm wide strips of 3M VHB 5952 to sides of Shock Fender, shown in red

4) Remove tape backing and insert fender into frame

Press fender firmly upwards and outwards to ensure proper adhesion. See Below

If tape is preinstalled on fender, ignore this step



Press fender firmly upwards and outwards to ensure proper adhesion

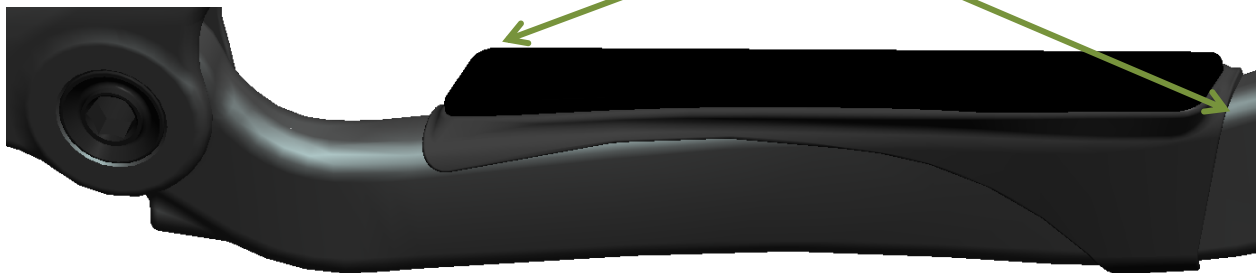
Fender should fit snugly against frame at top and on sides

3M specifies 15psi of pressure for adhesion

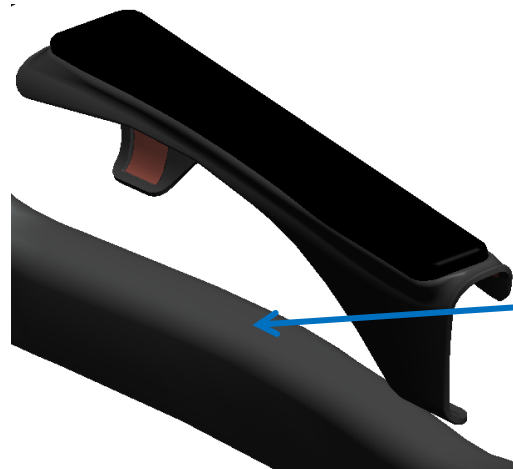
## 11.4 Chain-Stay Guard Installation

- 1) Before applying 3M tape, place Chain-Stay Guard (1805053) on Chain-Stay. The wide end of the guard sits towards the back of the bike, as shown. The guard should snap on positively

Identify this location by placing a small piece of electrical tape at the leading edge



- 4) Remove tape backing and place Chain-Stay Guard on Chain-Stay  
Press/squeeze firmly to ensure proper adhesion



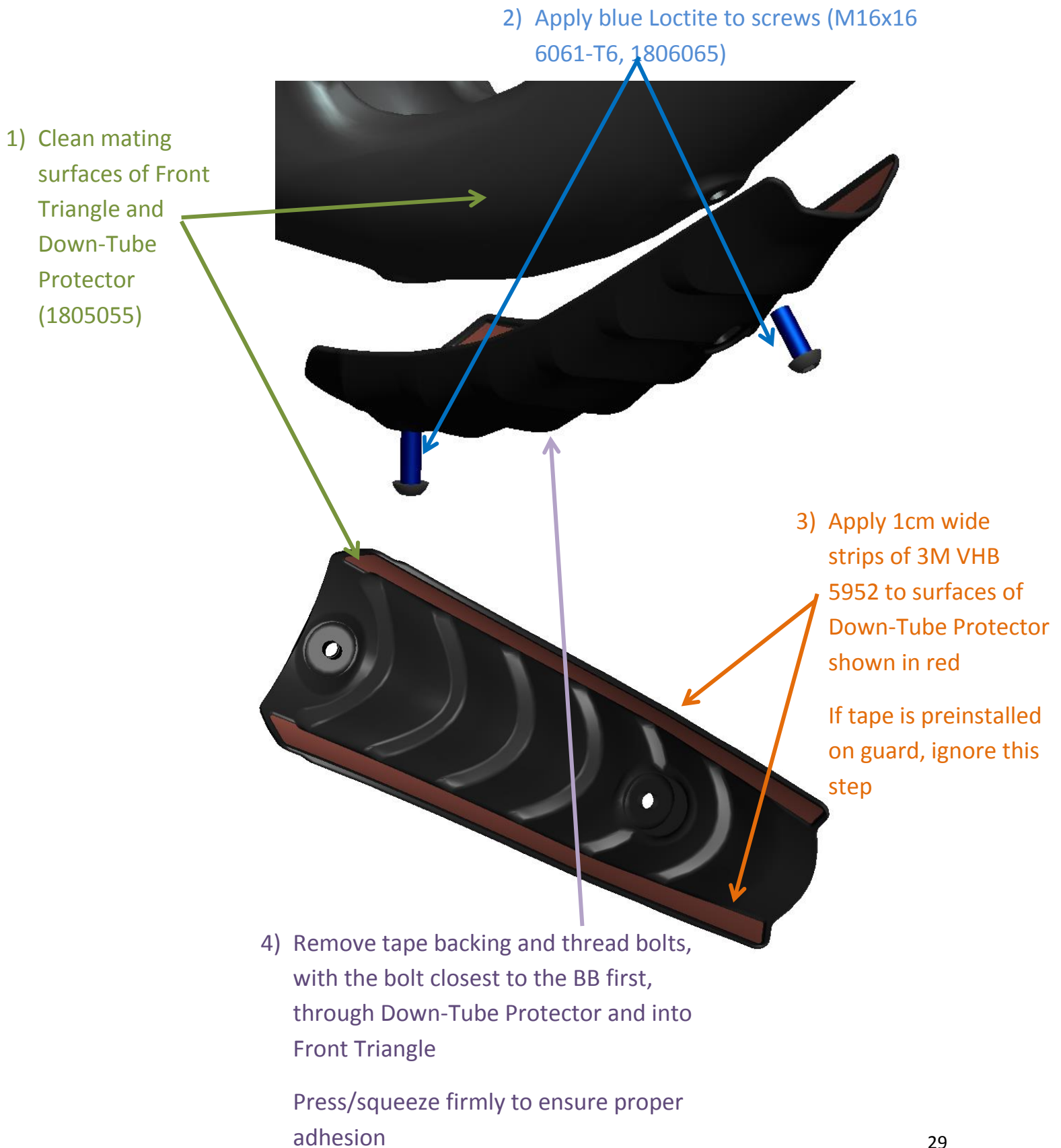
- 2) Clean Chain-Stay Guard and Chain-Stay mating surfaces with Isopropyl Alcohol



- 3) Apply 1cm wide strips of 3M VHB 5952 to surfaces of Chain-Stay Guard shown in red

If tape is preinstalled on guard, ignore this step

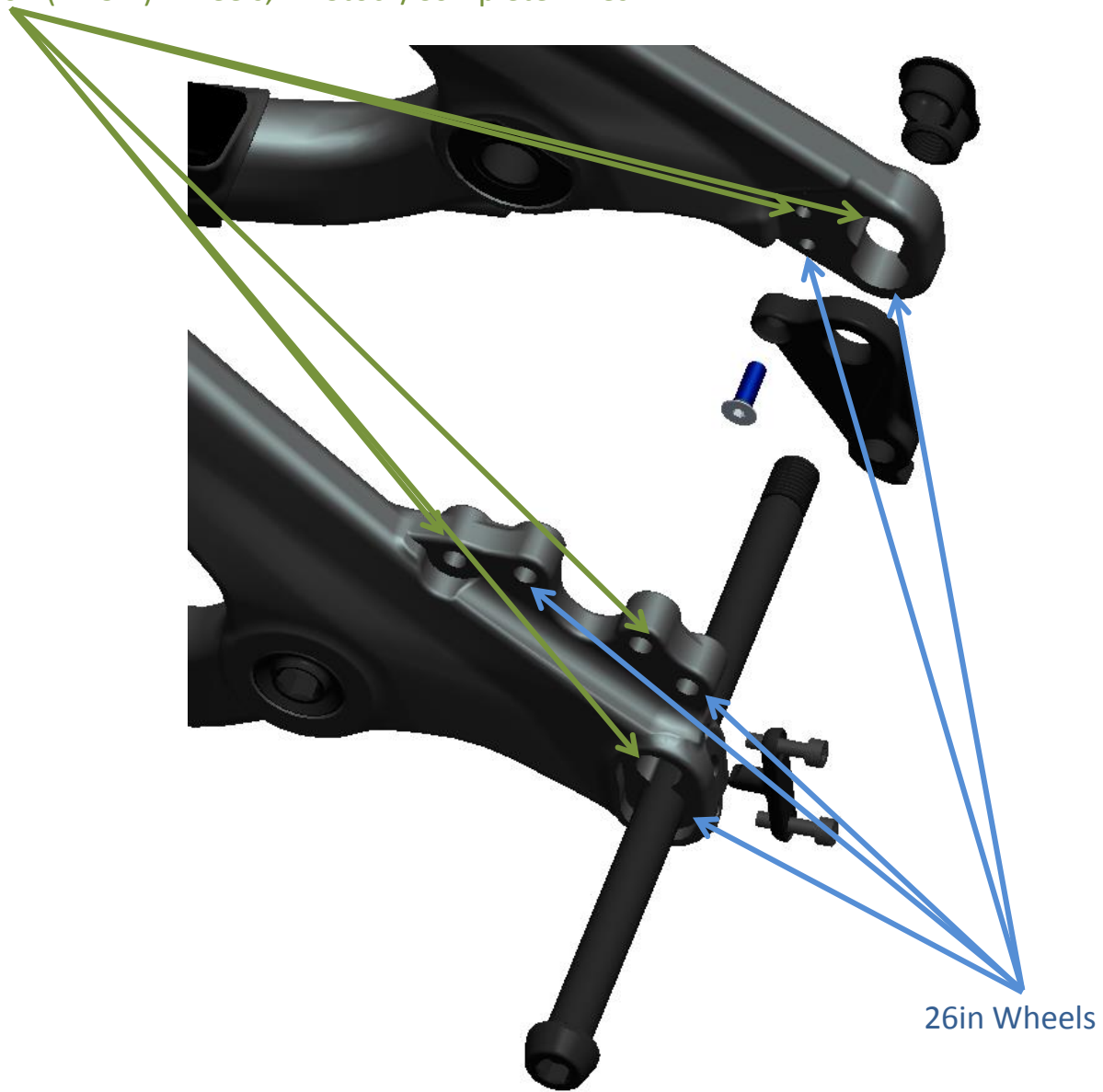
## 11.5 Down-Tube Protector Installation



## 12) Equalized Wheel Concept

### 12.1 Axle, Brake, and Derailleur Hangar Installation

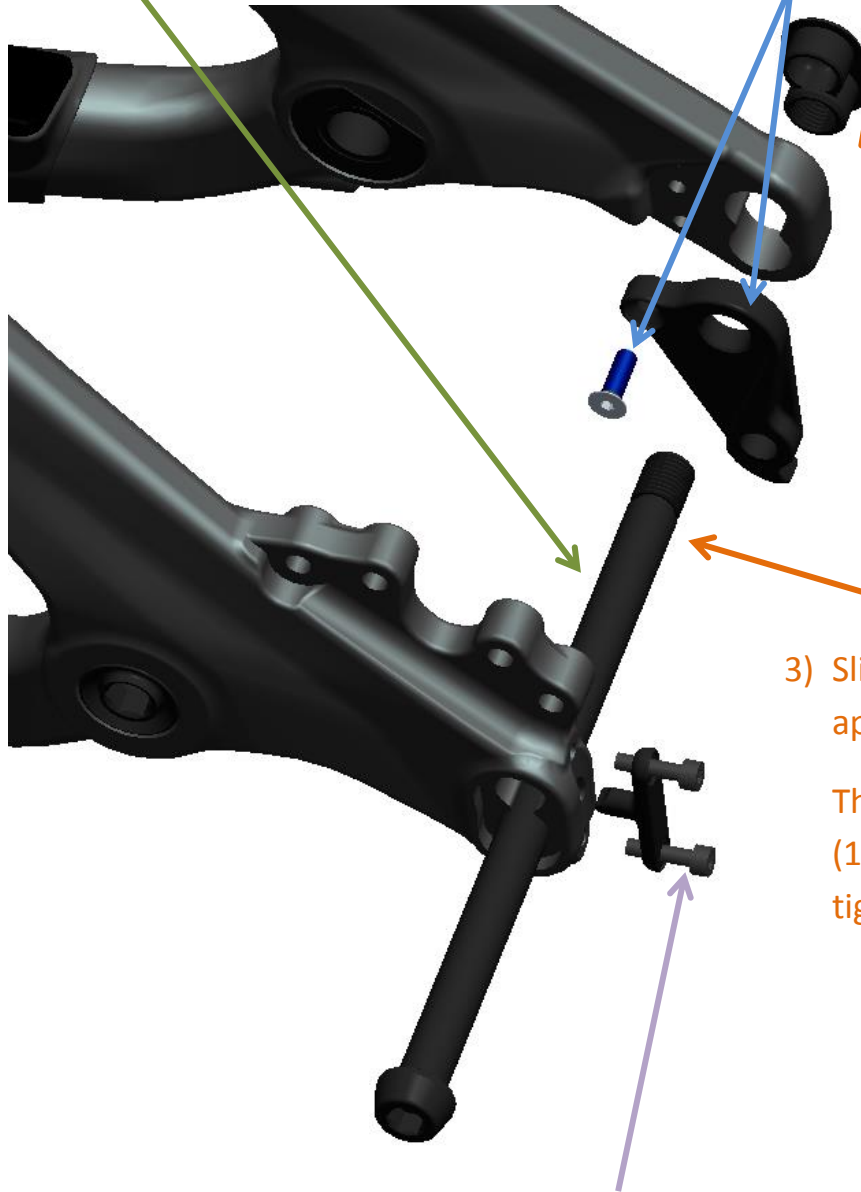
650B (27.5in) Wheels, All Stock/Complete Bikes



- 2) Apply blue Loctite to screw (M5x16 Stainless Steel, 180475-016), install derailleur Hangar in appropriate position (above)

Thread screw until snug, ensuring hangar sits flush with

- 1) Grease Rear Axle (3225001)



- 3) Slide Rear Axle into appropriate position

Thread into Axle-Nut (1804007) and tighten until snug

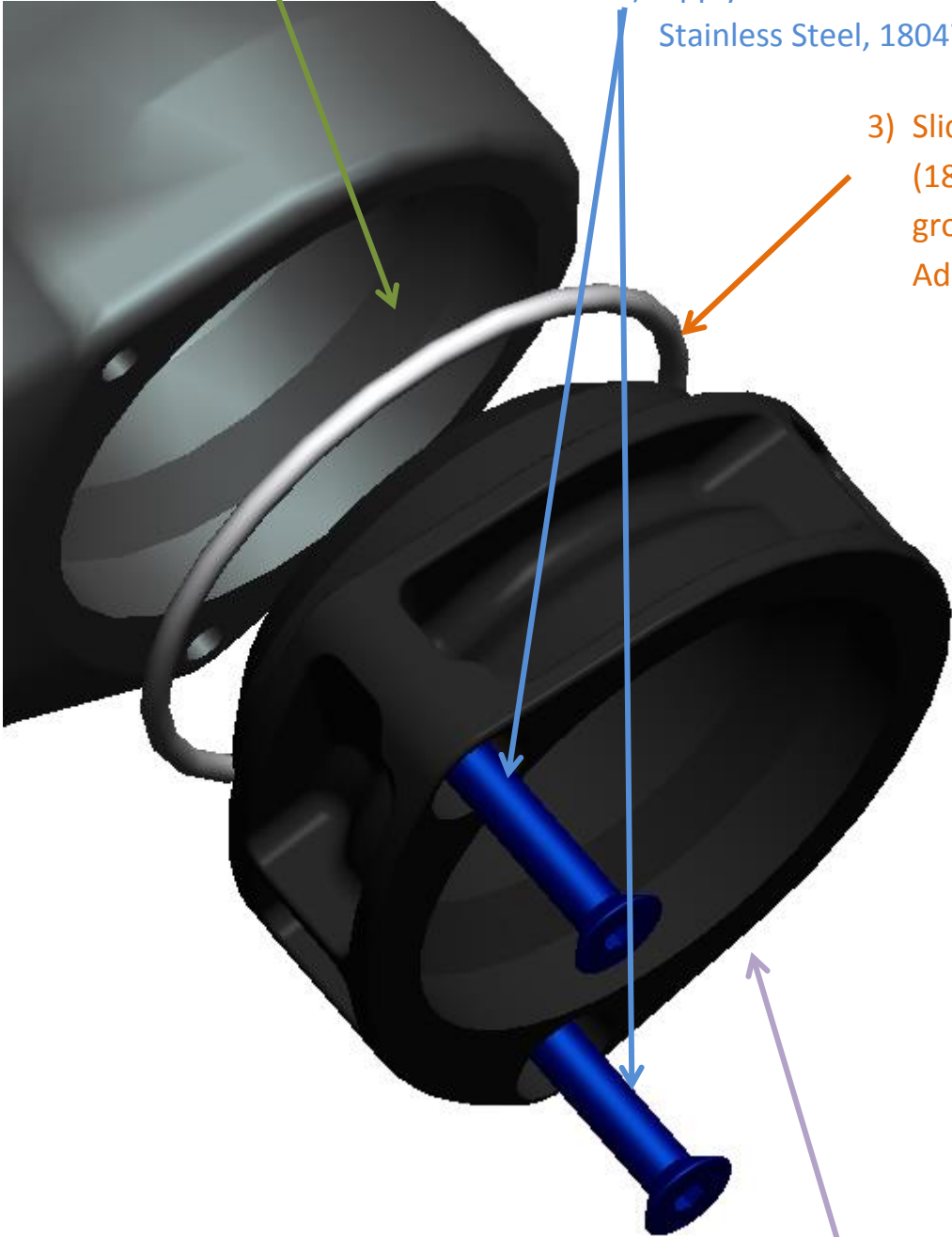
- 4) Install Dropout Clamp (1095012) and screws (M4x16 Stainless Steel, 1805009), tighten until snug

## 12.2 Head-Tube Adaptor Installation ( For 26in Wheels Only)

1) Grease Head-Tube bearing seat

2) Apply blue Loctite to screws (M5x30 Stainless Steel, 180475-030)

3) Slide O-Ring (1805018) into groove in Head-Tube Adaptor (1195001)



4) Slide Head-Tube Adaptor into Head-Tube

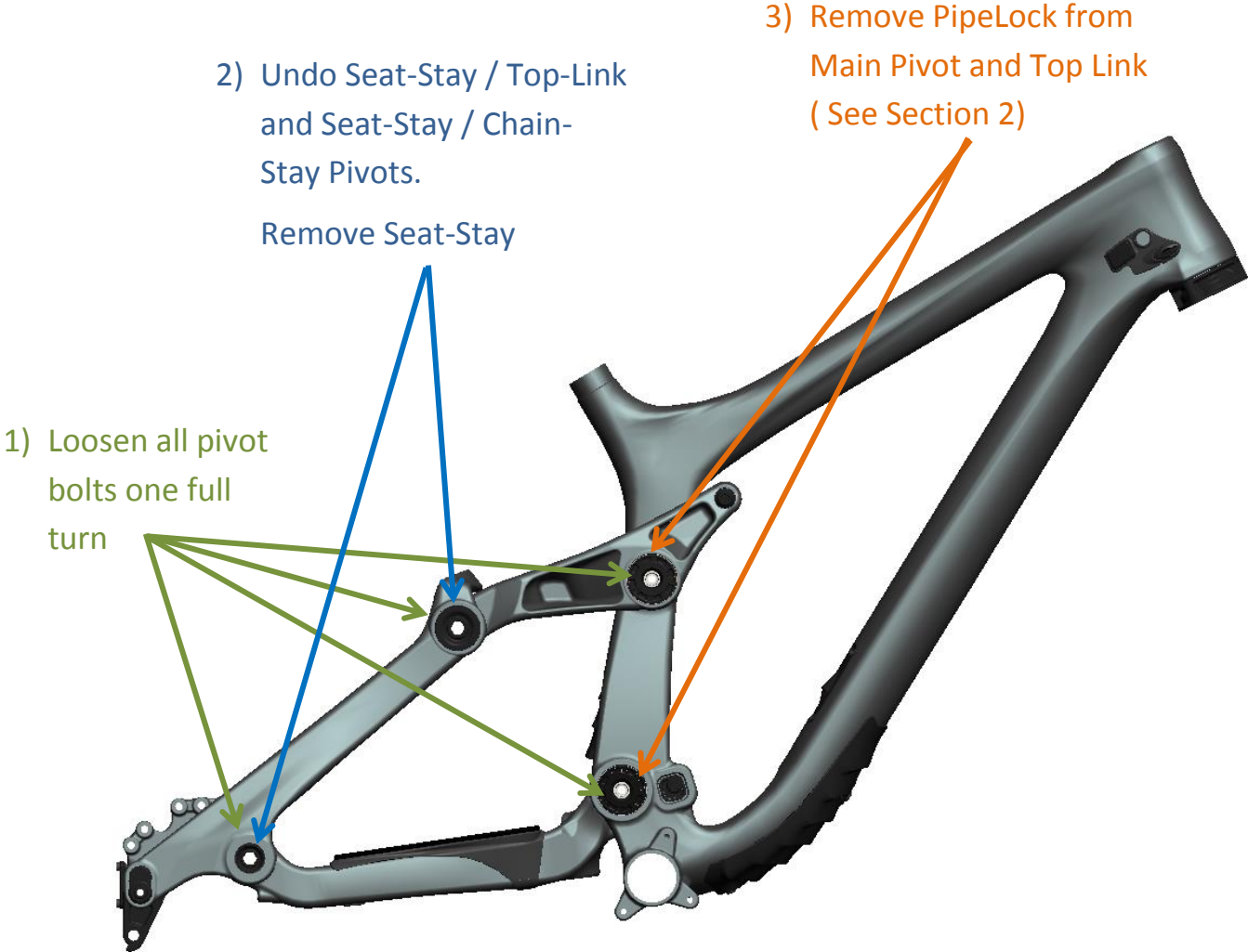
5) Standard Integrated headset is installed as normal

Install screws, tighten until snug.



# Disassembly Instructions

## 1) Disassembly Overview

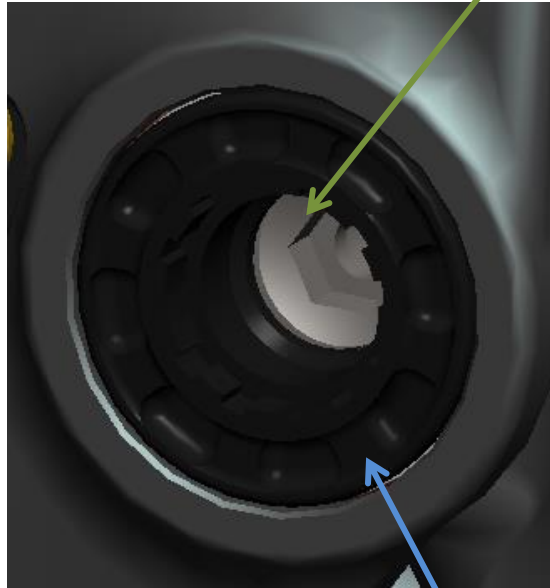


## 2) PipeLock Disassembly

### 2.1 Self-Extraction

Note: Same procedure applies to both Main-Pivot and Top-Link Pivot

1) Unthread PipeLock Bolt all the way. It will Self-Extract, similar to a crank-arm.

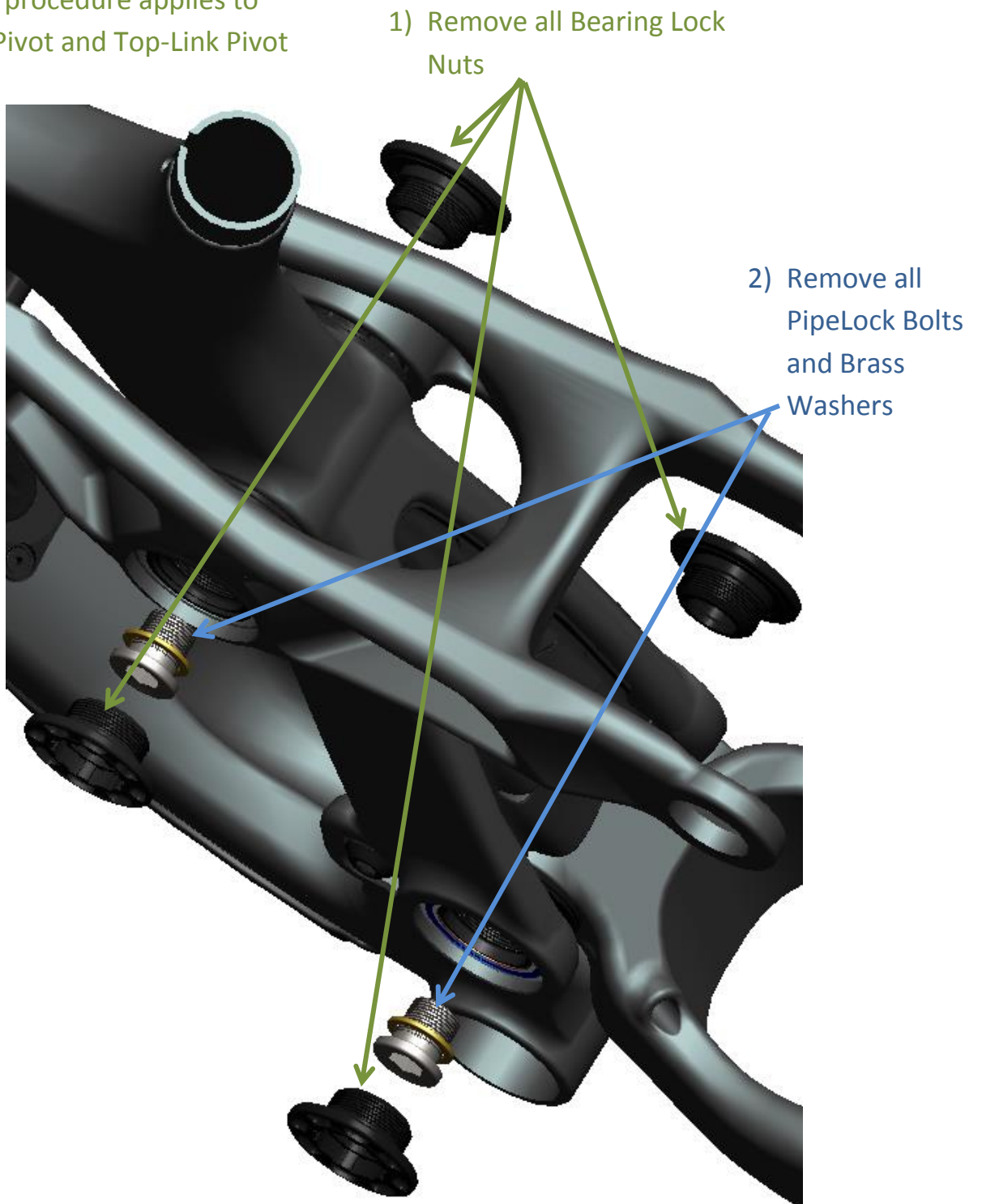


3) Remove Bearing Locknuts from PipeLock Axles before re-assembly

2) Gently tap the bearing locknuts to remove Second PipeLock Axle.

## 2.2 Tool Assisted

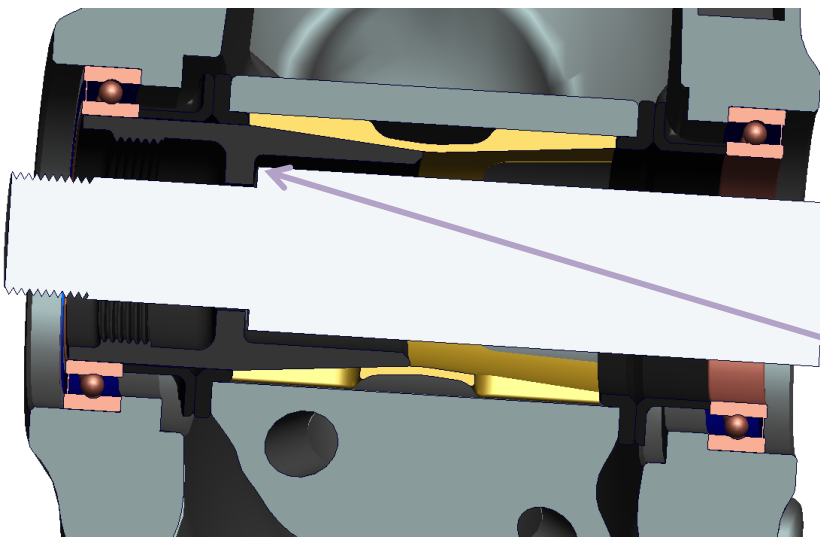
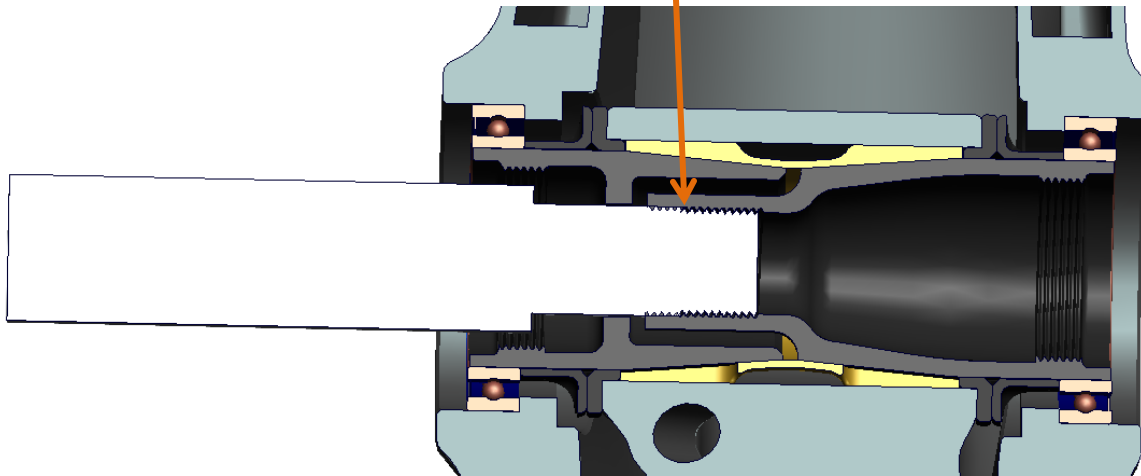
Note: Same procedure applies to both Main-Pivot and Top-Link Pivot





3) Thread M15 PipeLock Removal Tool fully into threaded PipeLock Axles from Non-Drive-Side

Tap with Mallet to Remove Drive-Side PipeLock Axles



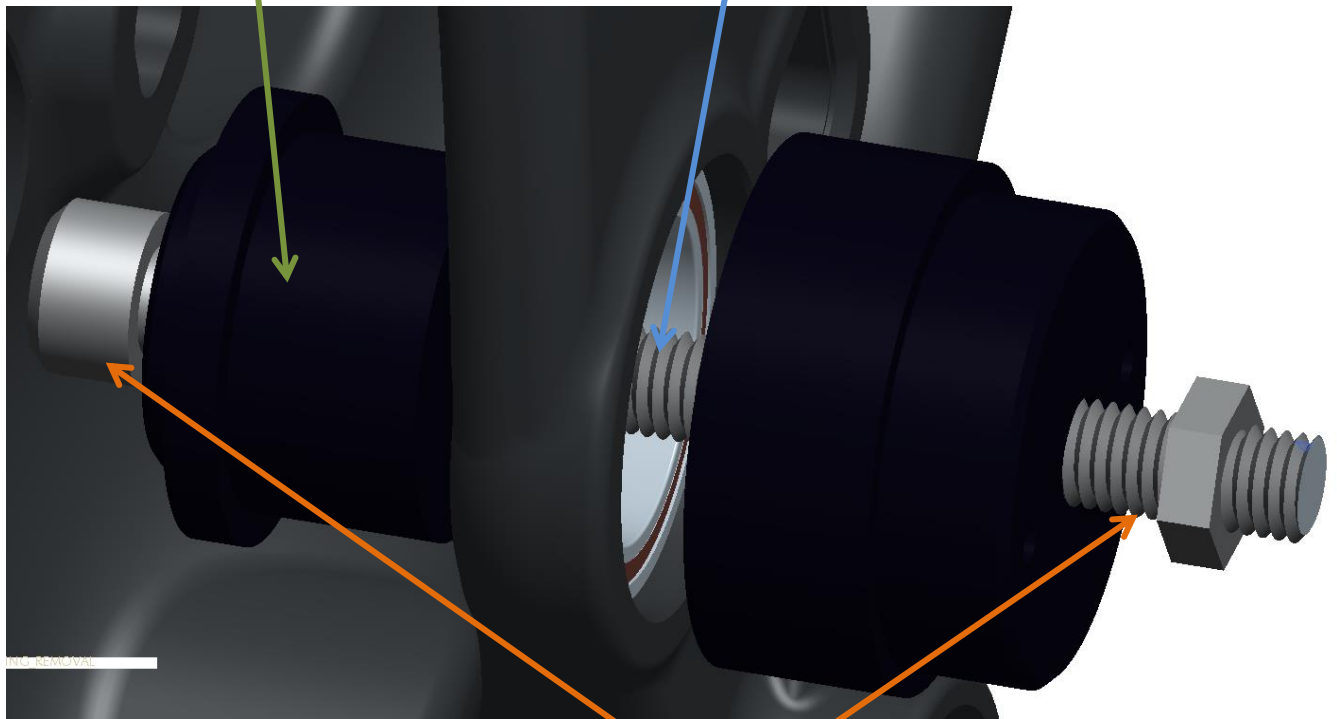
4) Slide M15 PipeLock Removal Tool into non-threaded PipeLock Axles from Drive-Side  
Tap with Mallet to Remove Non- Drive-Side PipeLock Axles

### 3) Bearing Removal

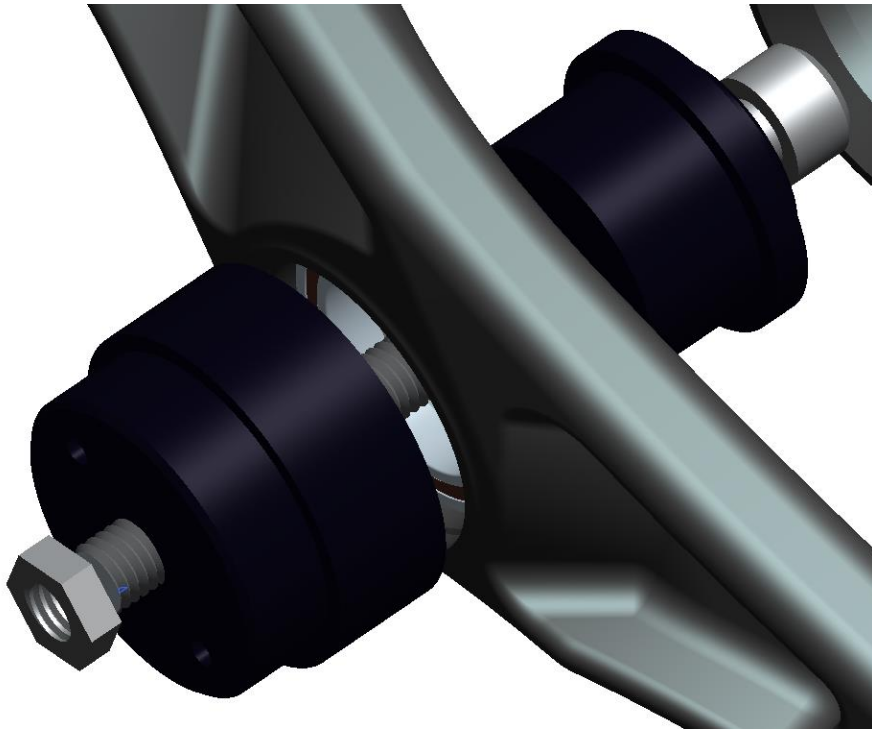
Note: Same procedure applies to all pivots.  
Front Triangle is used to explain

1) Seat appropriate bearing Tool  
Press with wide face against  
bearing inner race

2) Pass bolt through  
bearing tool press and  
set bearing cup against  
frame component with  
the open-side towards  
the bearing

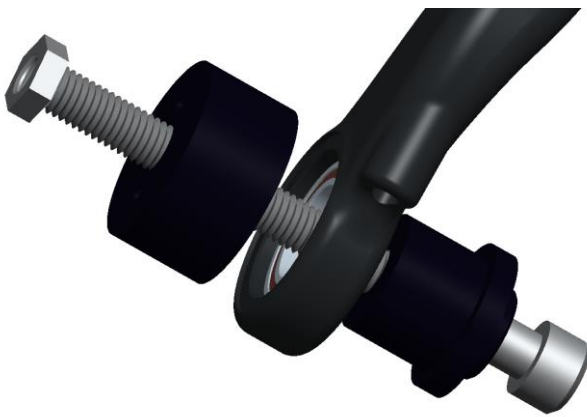


3) Tighten Allen-Key and Nut to press  
bearing out of frame



REMOVAL

Top Link Bearing Removal



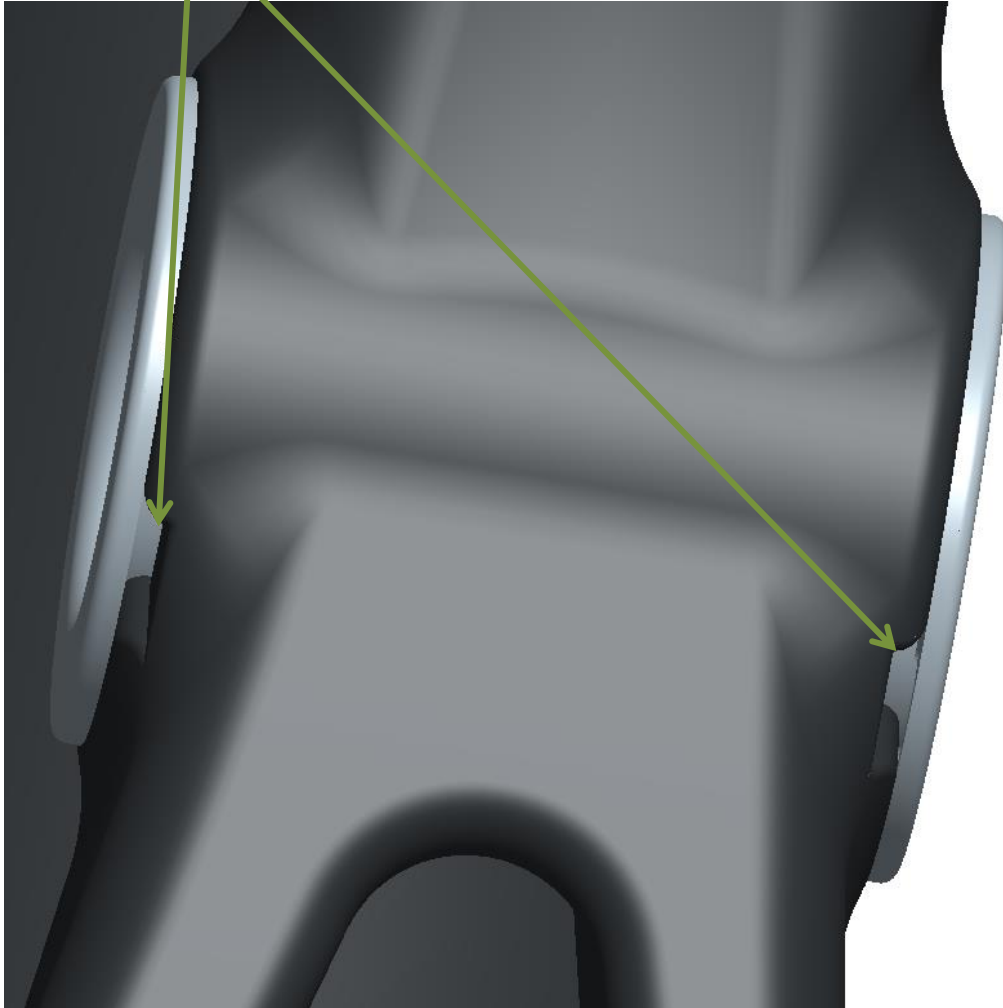
Chain Stay Bearing Removal



Seat-Stay Bearing Removal

## 4) Flange Race and Collet Removal

- 1) Gently pry Top Pivot Flange Races off with a flat-head screw driver in these recesses  
Collet will slide out freely



2) Gently pry Main Pivot Flange Races off with a flat-head screw driver leveraged against these faces

Collet will slide out freely

