

## SERVICE INTERVAL CHART

Service timeline may vary depending on riding conditions, frequency of rides and rider style. Use this chart as a general guideline only.

	BEFORE EACH RIDE	EVERY 25 HOURS	EVERY 100 HOURS	ANNUALLY	COMMENTS
CLEAN & LUBE DRIVETRAIN	X				
CHECK TIRE AIR PRESSURE	X				
CHECK FORK & SHOCK AIR PRESSURE	X				
CHECK ALL FRAME & COMPONENT BOLT TOQUES		X			REFER TO MFG RECOMMENDATIONS
REMOVE & CLEAN DRIVETRAIN			X		
SHOCK OVERHAUL				X	REFER TO MFG RECOMMENDATIONS
FORK OVERHAUL				X	REFER TO MFG RECOMMENDATIONS
*BOTTOM BRACKET OVERHAUL				X	
*HEADSET OVERHAUL				X	

\*These components use sealed cartridge bearings and in most cases will not need any more service than wiping off the parts, applying lube and reassembling.

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## 2010 FURY™ TECHNICAL MANUAL SUPPLEMENT



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### ADDRESSING PEDAL FEEDBACK

Any suspension frame design that does not separate the suspension from the drive train will experience pedal feedback. Pedal feedback is caused by an additional unwanted reactionary force which causes the pedals rotate backward during rear wheel travel. This is caused by the rear wheel getting further away from the front chain rings. The chain needs more slack to make up for this distance change and pulls back on the front chain wheel. This creates a reverse rotation in the crank set, in turn disrupting the riders pedal cadence and requiring more energy from the rider to overcome. With i-Drive technology, we've allowed the bottom bracket to move separately from the front triangle and rear triangle in a way that counteracts pedal feedback. During this movement, the distance from the pedal to the seat does not change and the pedal actually moves horizontally as opposed to up and into the rider. For the most part, pedal feedback is eliminated and the rider doesn't have that extra pedal force to overcome. Some suspension designs lock out the suspension until the rider hits a big enough bump or rely on "platform shock technology" to increase pedal efficiency. In both of these cases, active suspension has been compromised to increase pedaling efficiency. With i-Drive technology you get efficient pedaling and an active suspension 100% of the time.

### ADDRESSING PEDAL INDUCED BOBBING

Pedal induced bobbing is an event in which the force of your downward pedal stroke causes the rear suspension to compress resulting in energy loss. This is controlled by adding back in a small amount of pedal feedback, also called antisquat. Too much anti-squat (or pedal feedback) will lock out the suspension; reduce suspension action and ultimately, a loss of pedaling efficiency. Too little anti-squat results in efficiency loss from pedal induced bobbing. What we have achieved in a GT suspension design is a natural



balance between the downward body movement compressing the suspension and a small amount of anti-squat extending the suspension. The result is a neutral-feeling system that remains active over the small bumps yet does not "bob" when pedaling.

### ADDRESSING WHEEL TRAJECTORY

Wheel trajectory or wheel path is important because it is crucial that the rear axle move in the same direction as the bump force. If the wheel path does not line up with the direction of the bump force, the rider will lose momentum each bump they hit. GT suspension bikes are designed with a single, high pivot to give the bikes an arcing wheel path which moves up and back. This allows the suspension to accurately follow the bump force from beginning to end without the rider losing any momentum. As you can see in the illustration to the left, the YELLOW wheel path follows the same line as the RED bump force.

### ADDRESSING FRAME DESIGN

Frame designs that rely on multiple links to attach the front and rear triangles are subject to frame flex and long term durability issues. Each additional piece in a linkage design is an additional area that is subject to flex. Although GT suspension frames with i-Drive technology have a total of 4 pivots, the suspension works as a single pivot (cantilever) design. By using this type of frame design, we've been able to construct a stiff rear end using box construction and an oversize pivot. Single pivot frame designs are simple, cost effective and trouble free mechanisms.



### REAR SHOCK SETTING

GT equips all suspension bikes with rear shocks designed specifically for the correct leverage ratio and application for the bike. If you choose to replace the stock shock on your GT bicycle, make sure it is a replacement part approved by GT. Failure to do so may damage the frame and /or injure the rider and will void your warranty. Rear shock size specifications are shown in the Common Parts Service section of this manual.

### SAFETY PRECAUTIONS

- Check to make sure the upper and lower shock bolts are tight.
- Both of the steel shock bolts come with a light coating of thread lock to prevent loosening. Tighten bolts periodically.
- Periodically check for worn or loose shock bushings by placing one finger on the shock and one finger from the same hand on the frame. Move the frame up and down lightly, feeling for a light click or movement between the frame and shock. If a bushing is worn, contact the shock manufacturer.

### SHOCK TUNING

Follow the suggestions below for basic tuning tips. To get the best performance out of DHi, take a few moments to read over this section. Most importantly, start by setting the shock with the proper amount of sag and then go through the rest of the suspension setup steps to tune your ride. For more in depth tuning instructions, contact the shock manufacturer.

### PRELOAD RING (COIL SHOCK ONLY)

This preload ring is used to adjust the amount of sag a rider is achieving while sitting on the bike. Sag is important because this measurement will determine how far in the travel the bike sits while you are riding it.

### MEASURING SAG (COIL REAR SHOCK)

- Tighten the preload ring on the shock body just until the rings starts to compress the spring.
- Slide the bottom out bumper on the shaft of the shock all the way up until it rests up against the main body.
- Sit on the bike gently without compressing the shock any more than what your body weight does.
- Once off the bike, use a ruler and measure the distance that the o-ring has moved on the shaft.
- This measurement is the sag.

Although, there is no critical shock setup recommendations, GT recommends that the sag is set at 25-30% of the shock travel as a starting point for tuning your bike.

### SAG RECOMMENDATIONS FOR FURY™:

100% shock travel = 76.2mm (3")  
25-30% shock travel = 19mm – 23mm (.75" - .9")

Tighten down the compression ring to decrease sag or unthread it to increase the sag. Please note that the compression ring is only for minor sag adjustment. If you have to thread it down more than 5 full turns to achieve your desired sag then the spring is too soft.

### REBOUND DAMPENING ADJUSTMENT

This adjustment is to control how fast the shock comes back to its uncompressed state. More rebound dampening will slow down the shock to eliminate kick back and less rebound will speed it up creating a more active, spring feeling. There is no GT recommendation for rebound dampening. This needs to be determined by you.

### FORK SETTINGS

GT equips all bikes with suspension forks, keeping in mind the desired geometry for that specific bike and its use. Changing the stock suspension fork with one that has longer or shorter legs may result in a geometry change and different handling characteristics. If you choose to replace the stock fork on your GT bicycle, make sure it is a replacement part approved by GT. Failure to do so may damage the frame and /or injure the rider and will void your warranty. See MFG supplement for safety precautions

### FRONT FORK TUNING

SEE MFG SUPPLEMENT FOR SETUP AND ADJUSTMENT INSTRUCTIONS

### MEASURING SAG (FRONT FORK)

1. Attach a zip tie around one of the upper tubes on the fork leg. Slide it all the way down until it rests against the top seal.
2. Sit on the bike and get in your natural riding position.
3. While still on the bike, slide the zip tie down until it rests on the top of the upper seal of the lower leg.
4. Once off the bike, use a ruler and measure the distance that the o-ring has moved up the upper leg.
5. This measurement is the sag.

SHOCK EYE TO EYE	9" (228.6MM)
SHOCK STROKE LENGTH	3" (76.2MM)
UPPER SHOCK REDUCER	19MM X 8MM
LOWER SHOCK REDUCER	19 MM X 8MM
AVERAGE LEVERAGE RATIO	2.77:1
REAR WHEEL TRAVEL	8.3" (211MM)
SEAT POST SIZE	30.0MM
REAR WHEEL SPACING	150MM
REAR WHEEL AXLE TYPE	MAXLE
BB WIDTH	83MM
HEADSET TYPE	1.5"

## SEAT POST

- Make sure the seat post height does not exceed the Minimum insertion line on the post.
- Make sure the post is long enough to sit flush or extend past the seat post exit hole on the frame.
- Apply a layer of grease on the post before inserting.
- Apply a layer of grease on all the post head bolts.
- Torque the post head bolts to the manufacturer specifications.
- Make sure the seat collar bolt or quick release is tight before riding.

## HEADSET

- Periodically check the headset for play or binding to avoid damaging the headset bearings or head tube.
- Using grease in and around the bearings and cones may prevent contamination and corrosion.

## BOTTOM BRACKET

- Use thread tape or grease on the threads to avoid contamination and corrosion.
- Use the appropriate spacers for the 83mm BB shell.
- Always thread in the drive side cup first to the manufacturer specifications.

## ROCK SHOX MAXLE

### INSTALLATION

- Position your wheel in the dropouts of the frame. Be sure to position the rotor in the caliper. Verify that neither the rotor, hub, nor rotor bolts interfere with the frame. If unfamiliar with adjusting your disc brake, see your brake manufacturer's instructions.

## TIGHTEN

- Place Maxle lever in the open position.
- Slide the axle through the left side of the hub until it engages the threads of the right drop out.
- To tighten the axle into the dropout, turn the axle lever clockwise until hand tight.

**NOTE : NEVER USE ANY OTHER TOOL TO TIGHTEN THE AXLE INTO THE FRAME. OVER-TIGHTENING OF THE AXLE CAN DAMAGE THE AXLE AND/OR THE DROPOUT.**

## SECURE

1. To lock the axle into the drop out, close the Maxle quick release lever.
2. The quick release mechanism is an "over-center cam", similar to the quick release found on many bicycle wheels. When closing the lever, tension should be felt when the quick release lever is in the horizontal position (90 degrees to the axle), and the quick release lever should leave an imprint in the palm of your hand. If resistance is not felt at the 90 degree position and if the lever does not leave a clear imprint in the palm of your hand, tension is insufficient. To increase tension, open the quick release lever and turn the lock nut opposite the lever in small increments until proper tension is felt.
3. Position the quick release lever as desired.

## FRAME ASSEMBLY INSTRUCTIONS

### TOOLS NEEDED

- Waterproof bearing grease
- Thread lock, blue and red
- Torque wrench
- 5mm hex wrench
- 6mm hex wrench
- 8mm hex wrench
- 18mm cone wrench

### MAIN FRAME SERVICE TIPS

- Fine tune the main pivot adjustment after the bike is completely assembled.
- Use thread lock on both shock mount bolts.
- Use grease between all bearing Seats and ACB Bearings.
- Use grease on all contact points on the main pivot pins and their threads
- Do not use thread lock on main pivot pin threads.
- When disassembling the frame for the first time, the pivot pins may need to be removed by tapping them out with a soft mallet and a 20mm socket from a ratchet set.

## FRAME ASSEMBLY INSTRUCTIONS

### A) NUTSERT ASSEMBLY

1. Insert the Nutserts on the BB Link, Front Triangle, and Rear Triangle by using the nutsert installation tool and a hydraulic press. NOTE: The Nutserts must be installed on these parts before any other parts are installed on the frame.



A) BB LINK NUTSERT ASSEMBLY



A) FRONT TRIANGLE NUTSERT ASSEMBLY

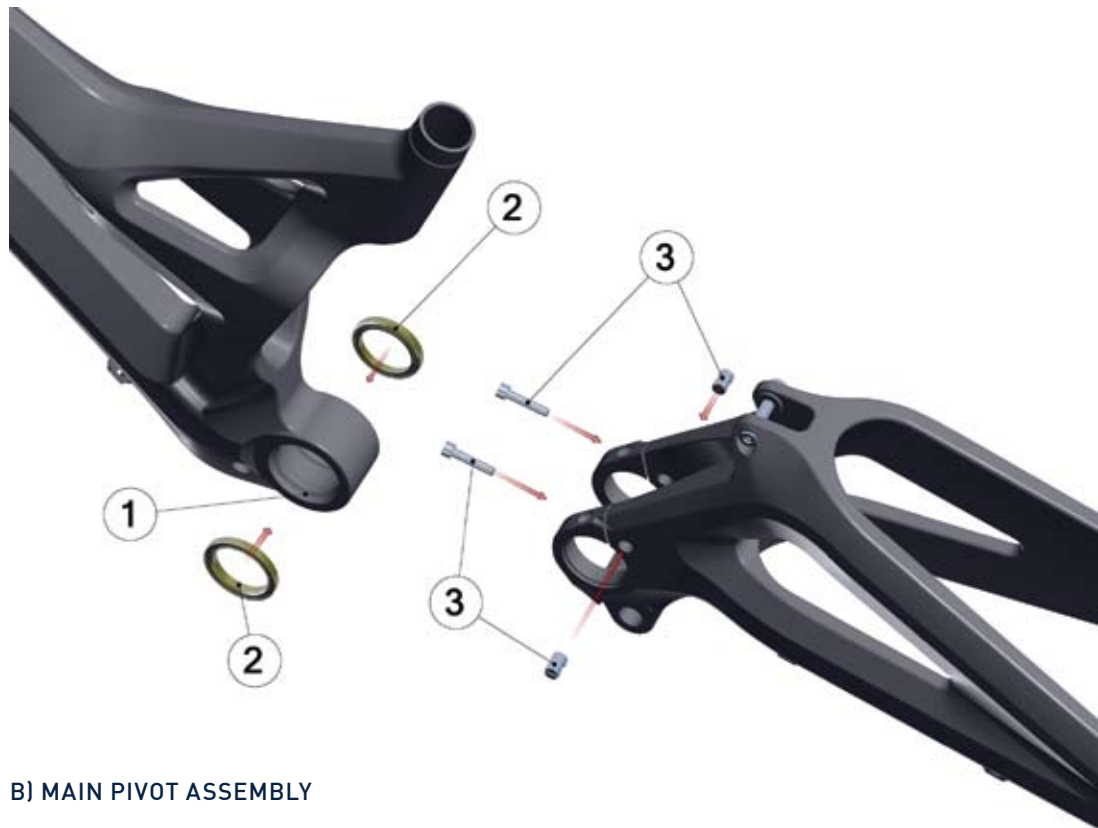


A) REAR TRIANGLE NUTSERT ASSEMBLY

NOTE: ASSEMBLY INSTRUCTION STEP A IS ONLY FOR REFERENCE. ALL NUTSERTS SHOULD BE INSTALLED AT THE FACTORY.

## B) MAIN PIVOT ASSEMBLY

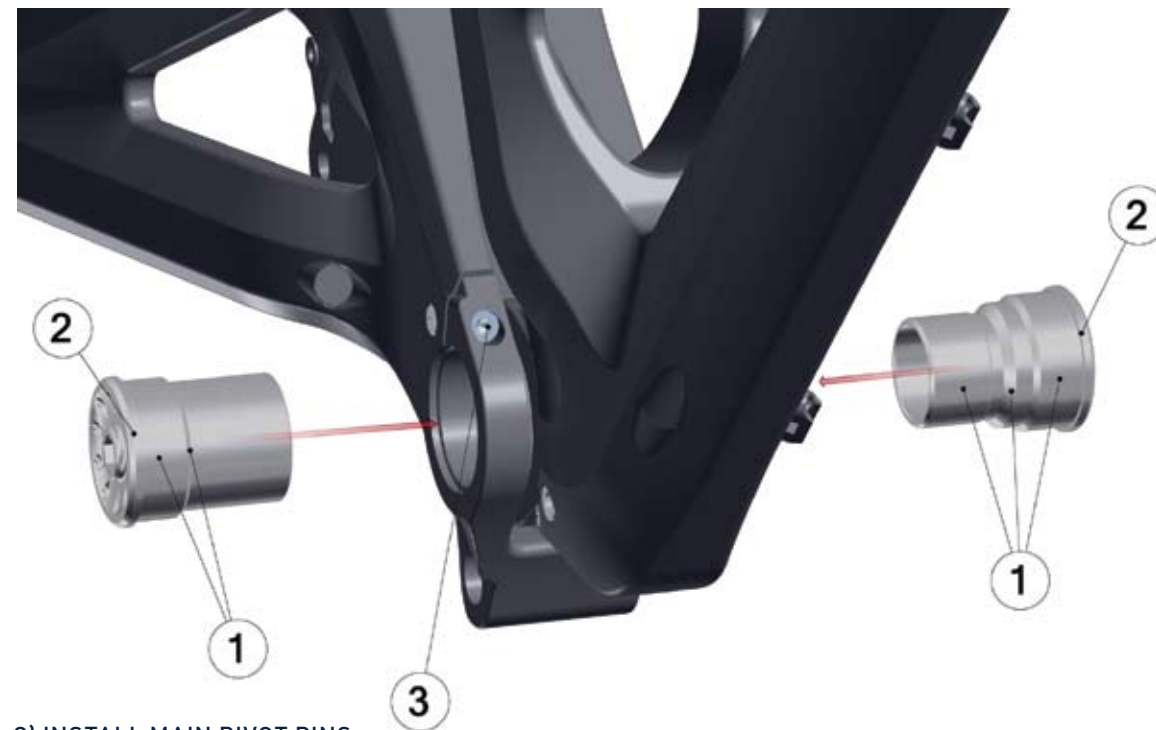
1. Apply a generous amount of grease to the bearing surface on the inside of the front triangle.
2. Install the Main Pivot Bearings. The angled surface on the outer diameter of the bearing should go in first.
3. Install the Main Pivot Clamp Bolts and Barrel Nuts on the swing arm. NOTE: Use blue thread lock on the bolt threads.



B) MAIN PIVOT ASSEMBLY

## C) PIVOT PIN ASSEMBLY

1. Apply a generous amount of grease to all bearing contact surfaces and the threads on the Pivot Pins.
2. Thread the Pivot Pins together and tighten down until all play is removed from the swing arm.
3. Tighten down the main pivot pin clamping bolts on each side. NOTE: Torque these bolts to 105 LB-IN/121KG-CM

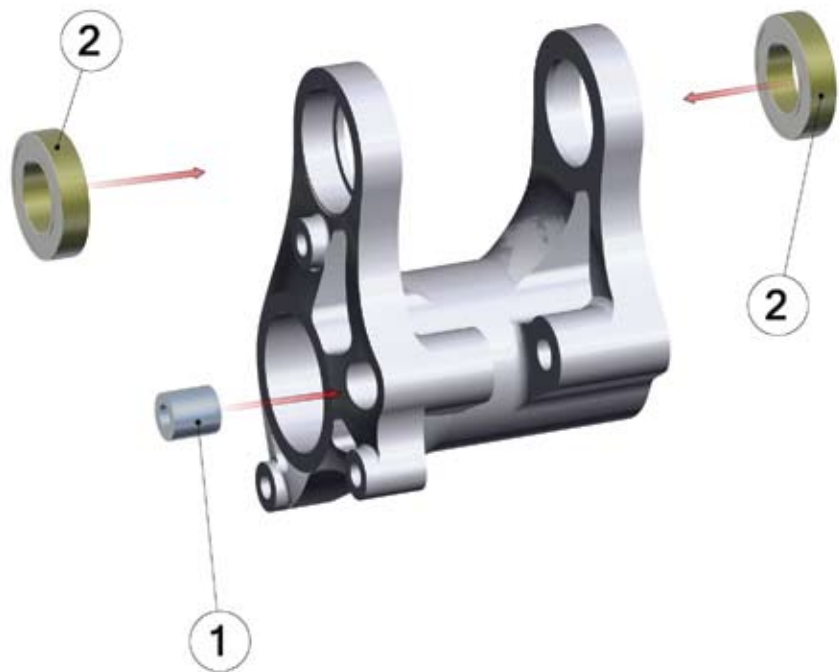


C) INSTALL MAIN PIVOT PINS

## FRAME ASSEMBLY INSTRUCTIONS

### D) PREPARE BB LINK

1. Install the threaded Nutsert by pressing it into the hole. NOTE: The Nutsert must be installed with a hydraulic press and the nutsert installation tool before the BB Link is installed on the frame.
2. Install the BB link bearings by pressing them into the bearing seats. NOTE: Use grease on the outside race of the bearing for ease of installation. The bearing must be pressed in with a tool that locates on the outer race of the bearing so the bearing does not get damaged on installation.

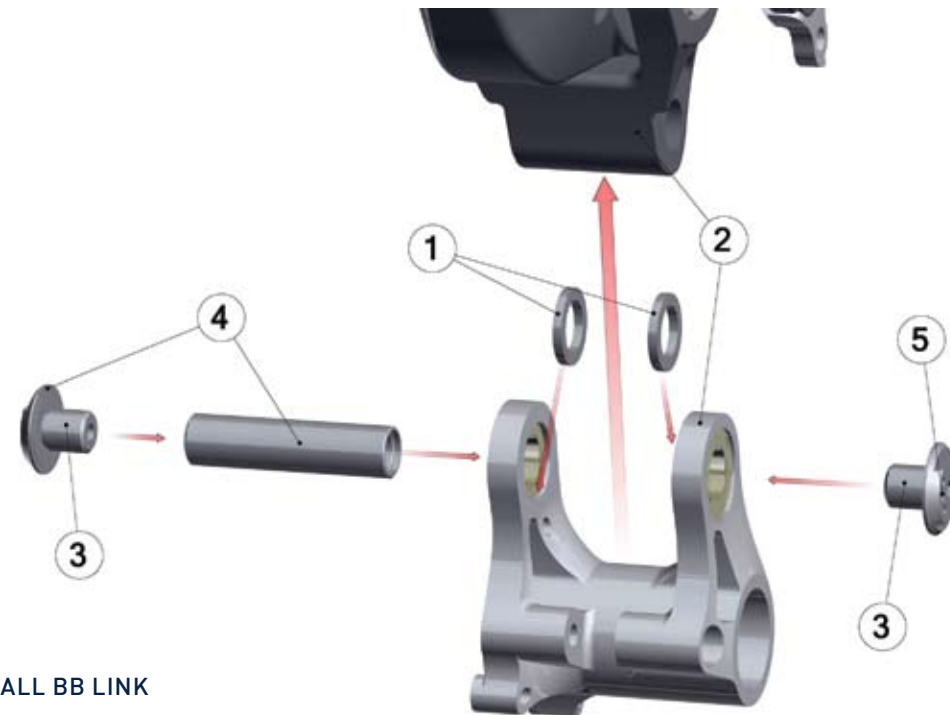


D) PREPARE BB LINK

## FRAME ASSEMBLY INSTRUCTIONS

### E) INSTALL BB LINK

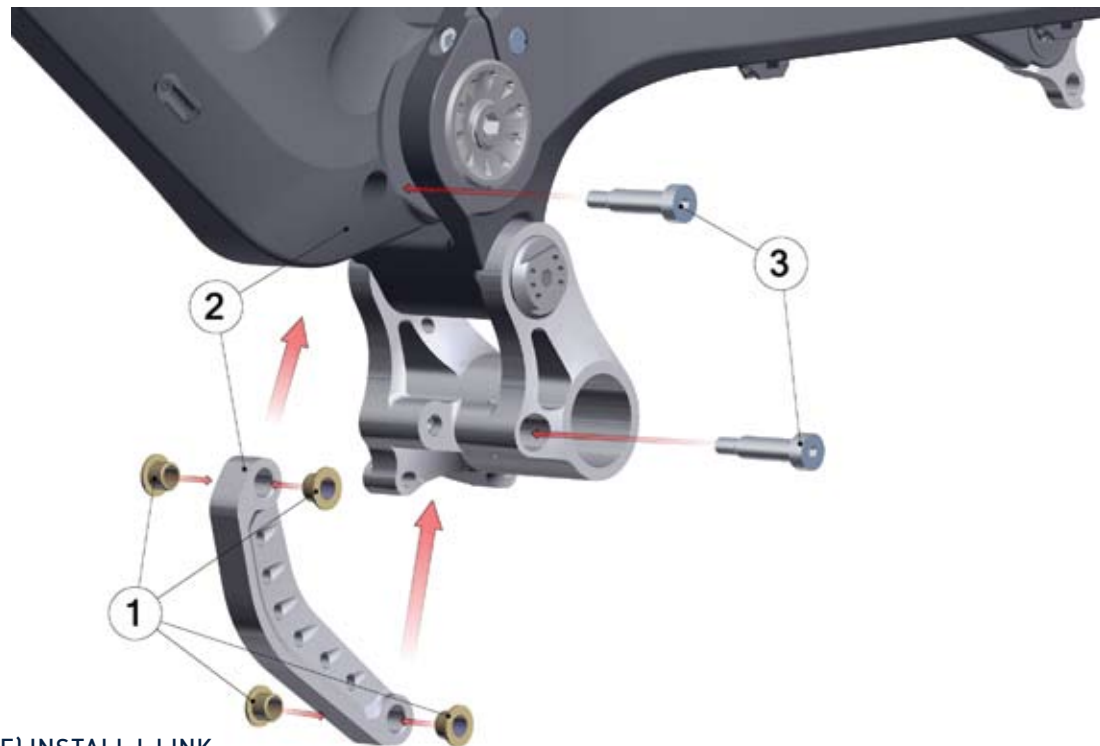
1. Install BB Pivot Bearing Spacers between the BB link bearings. NOTE: Use grease on both sides of the washers to hold them in place and to help in assembly.
2. Install the BB link on the rear triangle and line up the pivot holes.
3. Apply a thin layer of blue thread lock to the threads on the Pivot End Caps
4. Thread one Pivot Pin End Cap on to the pivot axle and tighten. Slide the pin and pin cap assembly thru the pivot holes on the right side of the BB Link to mount the BB Link on the frame.
5. Thread in and tighten the pivot pin cap on the left side of the frame. NOTE: Torque this bolt to 160 INLB/184 KG-CM



E) INSTALL BB LINK

## F) INSTALL I-LINK

1. Press in the IGUS bushings in to the I-Link body.
2. Assemble the I-Link onto the front triangle and BB Link and line up the pivot holes on all parts.
3. Insert the M6 shoulder bolts and tighten down. NOTE: Use a small amount of grease on the shoulder bolt for easy insertion. Torque these bolts to 105 IN-LB/121 KG-CM



F) INSTALL I-LINK

