Table of Contents

INTRODUCTION

No two riders are alike. That's why at Rocky Mountain we hand-build our bikes according to different platforms for different riding styles. The bikes may be different, but they all share our commitment to quality and innovation. Bikes built for people who love the ride.

OUR MISSION

Our goal is simple: build a high-grade quiver of bikes that riders will love to ride. It's the approach we take when we design, test, and build our extreme freeride bikes, our road racers, or any of our excursion and city bikes.

Whether you're looking for that certitude and grit to stick that big drop on the North Shore, the faith that you can push just a little harder to win your heat, or the peace of mind in knowing you have the reliability in your city bike to take you on your daily commute, you need to have confidence in your bike to really love the experience.

So, to ensure that every rider who rides a Rocky Mountain bicycle has the confidence that they have the best bike there is, we employ a higher standard of manufacturing. Visit our factory in Vancouver, BC, Canada, and you'll see this adherence to quality for yourself.

2005 PLATFORMS DEFINED

Rocky Mountain bikes are grouped by platform. Because our bikes are built by enthusiasts, for enthusiasts, we know what works best for different riding conditions and styles. This is why we offer a full range of bikes, each specifically suited for each riders different riding needs. While each platform is different, they all share our never-ending commitment to creating the best riding experience there is.

Categories
Rocky Mountain bikes are hand-built according to different platforms for different riding styles.

Extreme Freeride: Aggressive downhill - Long travel - Big stunts - Built to go huge.

Freeride: Drag and drop - Big suspension - Versatile - Ride back up.

Freeride / Dirt Jump: Long travel front - Hardtail - Aerials / Tricks - Built tough for hard landings.

All-Mountain: Go anywhere / Do anything - Full suspension - Lighter weight - Bombproof versatile riding.

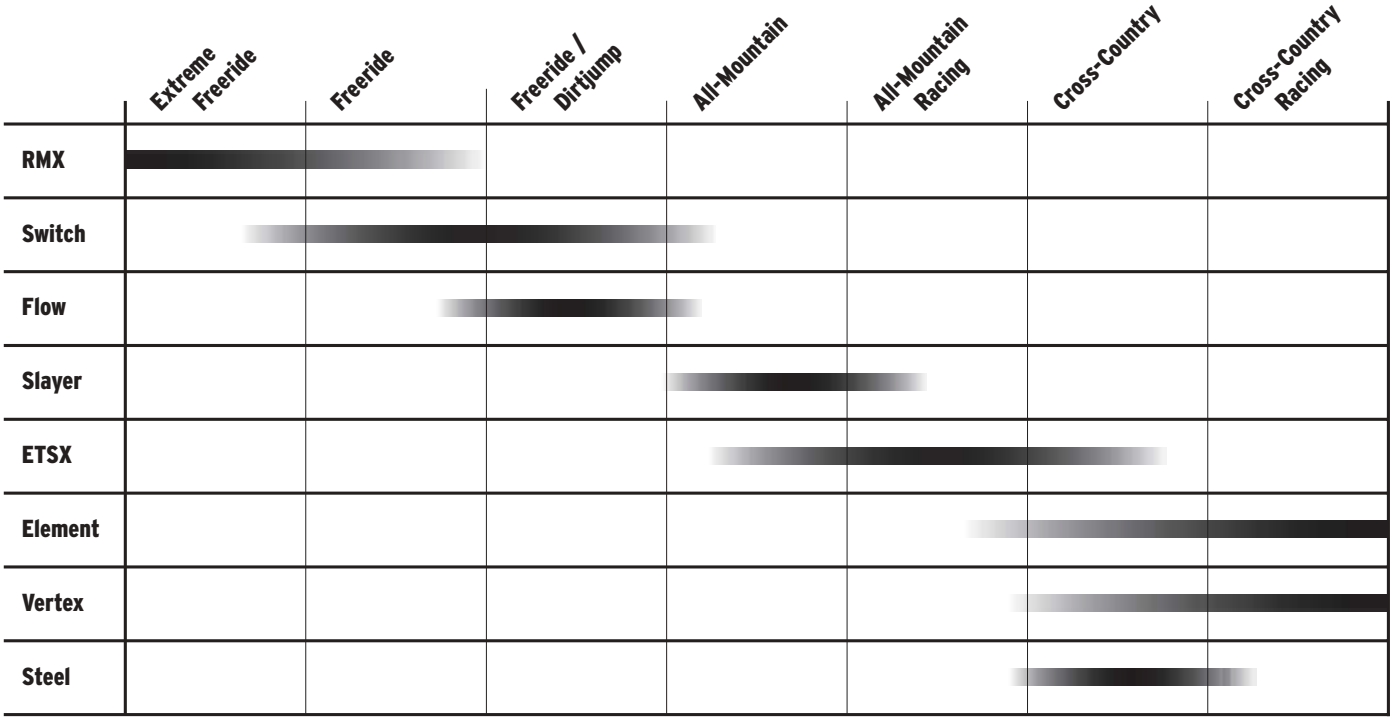
All-Mountain Racing: World-class performance - Long-travel Cross-Country - Ultra fast, lighter weight - Built to win.

Cross-Country: Super maneuverable - Ascend like a mountain goat - Built for your hammer fest.

Cross-Country Racing: World Cup racer - Blisteringly fast - Feather light - Ready for the harshest race course.

Sport Hardtail: Urban Commuting - Fitness Training - Tough and Reliable sport level rides.

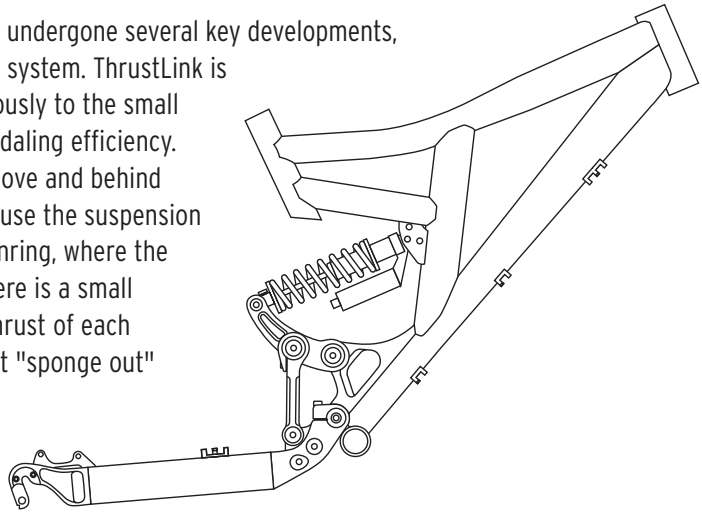
Excursion Comfort: Versatile - City Bike - Ready for those summer touring adventures.



RMX

DESIGN

Based on the smooth suspension of our RM platform, the RMX has undergone several key developments, the most significant being updates to the ThrustLink™ suspension system. ThrustLink is all about control. It's a suspension system that reacts instantaneously to the small stuff, yet won't sacrifice performance on really big hits or lose pedaling efficiency. The key is in the pivot location: The ThrustLink pivot is located above and behind the bottom bracket, so reaction forces from the ground do not cause the suspension to extend or compress. The pivot is also inline with the front chainring, where the greatest pedaling torque occurs. When the suspension travels, there is a small amount of chain growth which acts to neutralize the downward thrust of each pedal stroke. The result is a long travel suspension bike that won't "sponge out" as you pedal. You get a big, plush ride that's nimble on the small bumps, yet still soaks up the big hits.



FEATURES

Production version of "works" RM7 platform created for RMB Freeriders. A completely reworked design, with very little carryover from the 2003 RM7 platform:

- 100% Rocky Mountain Handbuilt Easton RAD tube front end.
- Stronger front triangle design incorporating a custom bent Easton RAD top tube for improved standover height and a beefed-up pivot mount.
- ThrustLink linkage with increased bearing capacity at all locations, larger linkage components and outboard bearing positioning for increased stiffness and durability.
- Longer stroke rear shock (8.75" eye-eye x 2.75" stroke) giving 8 inches of rear travel and a rear shock friendly 2.9:1 leverage ratio. Standard eye-eye size and lower leverage ratio allows for other shock options.
- German engineered high load INA needle and cartridge bearings in pivot locations for more durability on big hits.
- Geometry with slacker angles allows for more radical descents.
- Larger-diameter (44.5mm) head tube for increased durability.
- Cold-forged, CNC machined bottom bracket, swingarm yoke and dropouts.

RMX FRAME ASSEMBLY

1. **Main Pivot Bearing Assembly-Please Refer to Dwg. Nos. 700008-01/700008-02**
   Lightly grease the inside of the main pivot shell and the outside of the main pivot Bearing Housing-181092SIC, next press the Bearing Housing into the main pivot shell. **NOTE** Ensure the bearing sleeve hole is aligned with the grease-fitting hole at the rear of the main pivot shell.

2. Lightly grease both sides of the inside of the Bearing Housing-181092SIC. Press in two Needle Bearings-181071INA, one on each side of the housing. Ensure the grease seal inside the bearing is to the **outside** of the bearing housing.

3. Place the grease nipple O-ring-180112CST onto the threaded side of the Grease Nipple-180106FBY and install using a 7mm combination wrench or deep socket. Over-tightening will deform the O-ring.

4. With the Thrustlink Swingarm-105902RMH, install the plastic washers between the clamps. Then, lightly thread the M6 x 25mm Low Head Cap Bolt-180519FBY into each side of the swingarm clamp sockets **NOTE** Do not tighten this bolt now.

5. Holding a Thrust Washer-180234IGS on either side of the main pivot shell, carefully slide the Thrustlink Swingarm over the washers. Once the Swingarm is on, align the Thrust Washers with the main pivot shell. Then, slide the RMX Main Pivot Axle-181089SIC into the main pivot shell.

6. Next, the Main Pivot Inserts-181072SIC should fit into each side of the swingarm clamps and around the main pivot axle. Tap into place, making sure the slot in the cap is aligned with the slot in the swingarm clamp.

7. Thread the M6 x 16mm Button Head Cap Screw-180032FBY evenly into each side of the Bearing Shaft and torque 50-70 in/lbs to eliminate swingarm play. Once set, torque the swingarm clamp bolts to **80 inch lbs (be careful not to over torque)**. **The Button Head Cap Screw will remain installed at the end of this pro**

8. **Linkage Installation**
   Press six 608V-2RS Cartridge Bearings-181074INA into the lower end of the Y-Link-180303RMB pressing 3 from each side. The bearings should sit evenly with the edge of the link.

9. Insert the lower end of the Y-Link between the Swingarm clevis' with a Cartridge Bearing Shim Washer on each side of the Y-link between the bearing and the clevis. Using a blue threadlocker on the threads of a Swingarm Link Bolt (M8x69mm) -180457RMB insert into the non-threaded side of the swingarm through to the threaded/drive side clevis and torque between 160-180 in/lbs.

10. Moving to the R & LH Link Plates-180305RMB & 180306RMB. Using a High Strength Retaining Compound/ie:Green Loctite, press in a 3804-2RS Cartridge Bearing-181036ABI to each link plate. Next, lightly grease and install the Pivot Mount Inserts-181038FLW to each side of the down tube pivot hole. Mount the link plate on the outside of the Pivot Mount Insert then lightly grease and install the outer Cartridge Bearing Insert-181039FLW. Bolt this junction together using the Pivot Mount/Link Plate Bolt (M8x60mm) -180456RMB and torque to 80in/lbs.

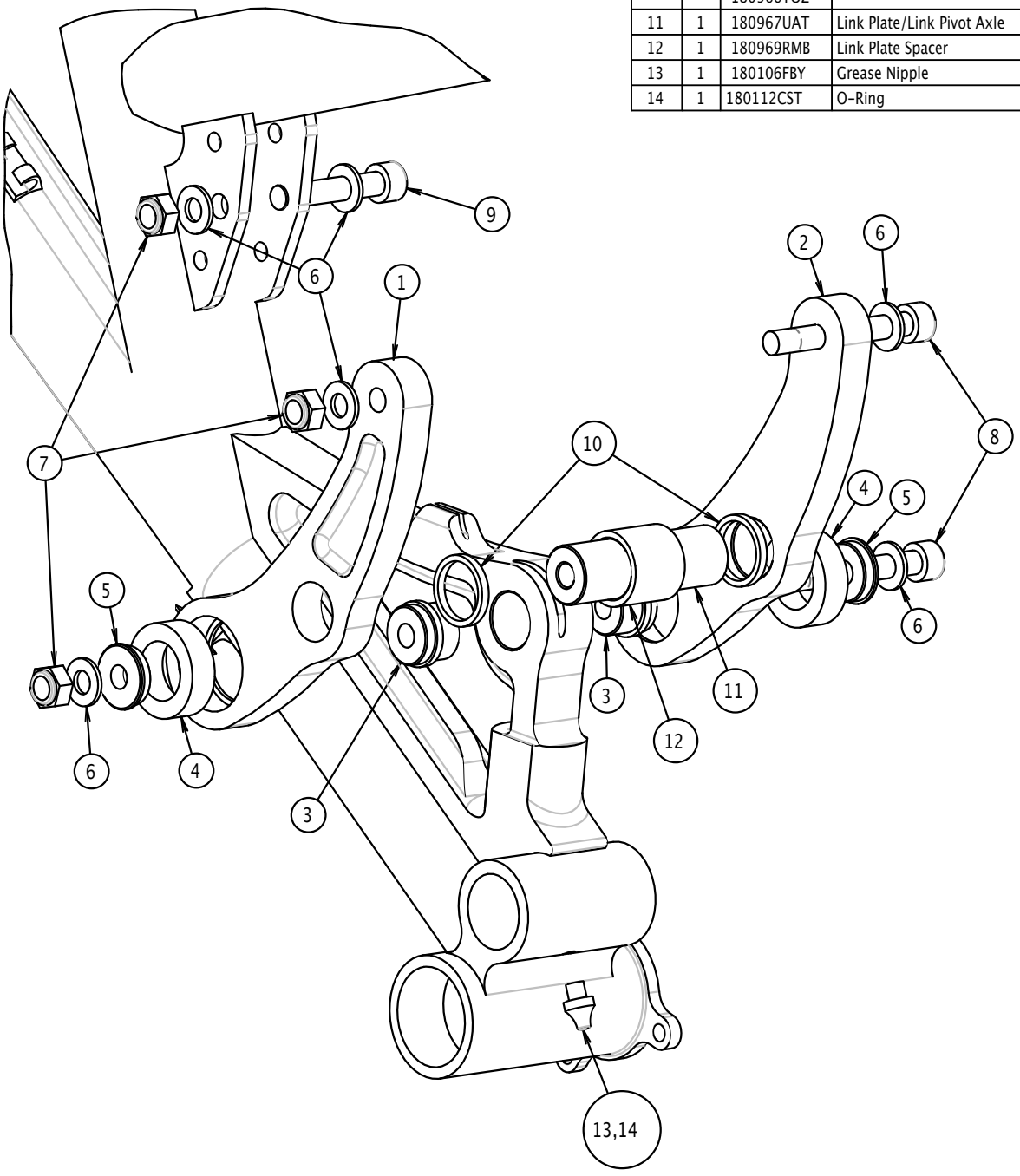
11. Now, using both exploded view drawings 700008-01&700008-02 as guides, **lightly grease and assemble the remaining parts** in this sequence; install upper Y-Link Cartridge Bearings. As the Y-Link and the Link Plates come together using the Link Plate/Link Pivot Axle-180967UAT, be sure to install the Link Bearing Inner Ring-180966UAT between the outside of the link plate and inside of the upper Y-link Cartridge Bearing and the Link Plate Spacer-180969RMB between the Link plates. Using the Cartridge Bearing Insert-181039FLW bolt this junction together and torque to 80in/lbs.

12. Install the rear shock using the Frame Shock Mount Bolt-180455RMB (M8x44mm) for the front and the Pivot Mount Link Plate Bolt-180456RMB (M8x60mm) for the rear and torque both to 100in/lbs.

2005 RMX PIVOT MOUNT/LINKAGE DETAIL

TITLE:	RMX PIVOT MOUNT/LINKAGE DETAIL				
DWG. NO:	700008-01	REV:	A	DATE:	06-16-2004
MODELS:	2005 RMX (ALL)				

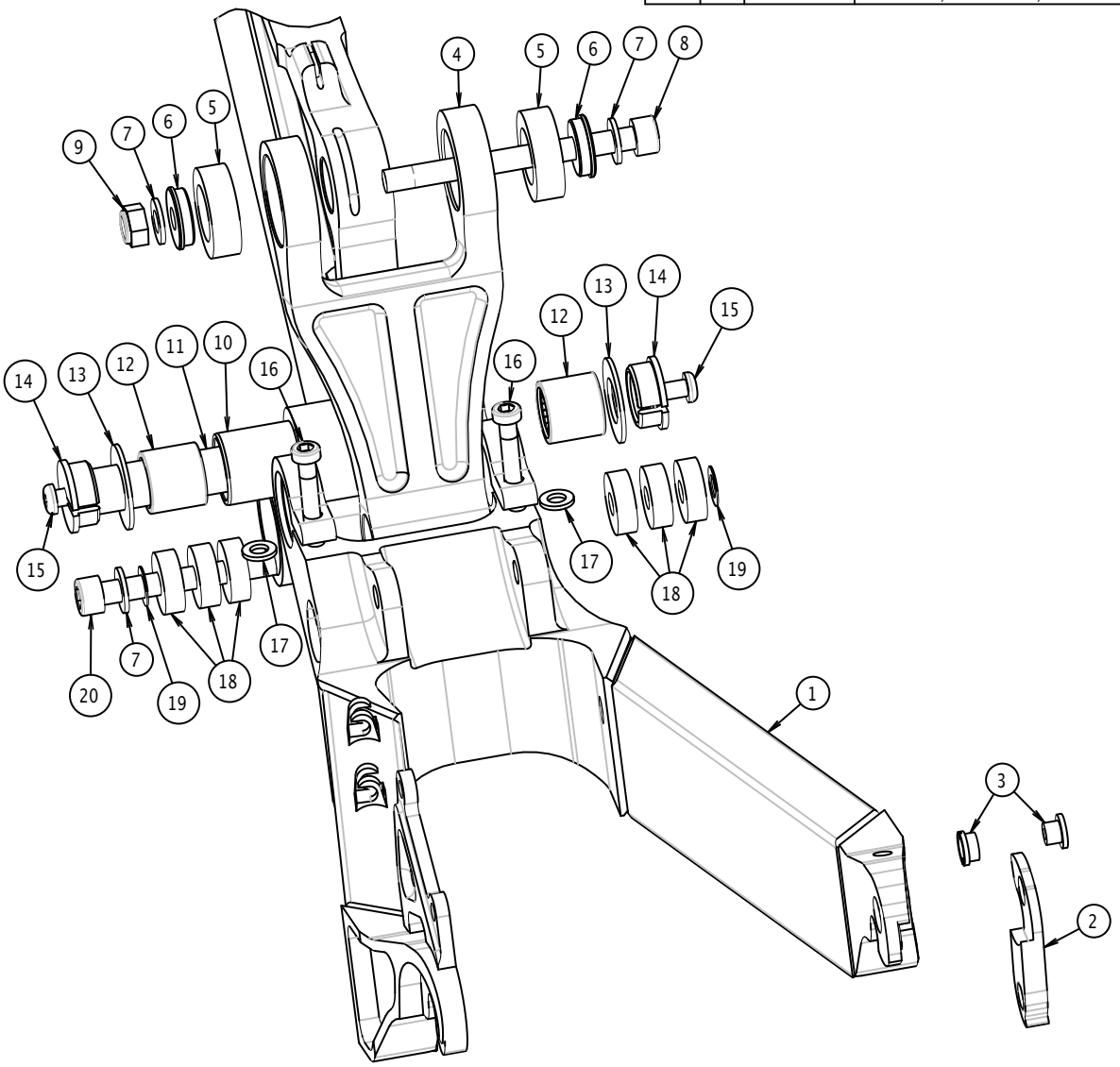
Item	Qty	RMB P/N	Description
1	1	180306RMB	RMX LH Link Plate, Machine Polish
2	1	180305RMB	RMX RH Link Plate, Machine Polish
3	2	181038FLW	Pivot Mount Insert
4	2	181036ABI	3804 2RS Cartridge Bearing
5	2	181039FLW	Cartridge Bearing Insert - 20mm ID
6	6	180049FBY	M8 Flat Washer
7	3	180048FBY	M8 Lock Nut
8	2	180456RMB	Pivot Mount/Link Plate Bolt Grade 12.9, M8 x 60mm, Dacromet
9	1	180455RMB	Frame Shock Mount Bolt Grade 12.9, M8 x 44mm, Dacromet
10	2	180966UAT 180966YOZ	Link Bearing Inner Ring
11	1	180967UAT	Link Plate/Link Pivot Axle
12	1	180969RMB	Link Plate Spacer
13	1	180106FBY	Grease Nipple
14	1	180112CST	O-Ring



2005 RMX MAIN PIVOT/LINK DETAIL

TITLE:	RMX MAIN PIVOT/LINK DETAIL				
DWG. NO:	700008-02	REV:	A	DATE:	06-16-2004
MODELS	2005 RMX (ALL)				

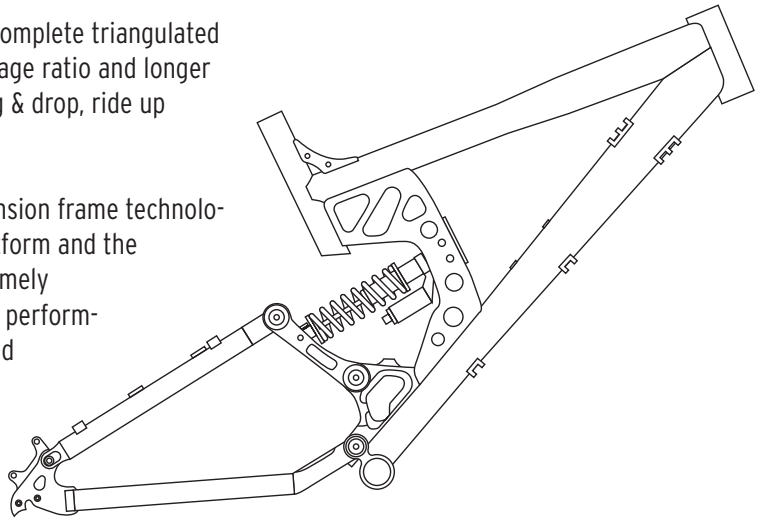
Item	Qty	RMB P/N	Description
1	1	105902RMH	2005 RMX Swingarm
2	1	180304UAT	Derailleur Hanger (RMX)
3	1	180510RUX	Hanger Bolt
4	1	180303RMB	2005 RMX Link
5	2	181036INA	3804 2RS Cartridge Bearing
6	2	181039FLW	M8 Bearing Insert - 20mm ID
7	3	180049FBY	M8 Flat Washer
8	1	180458RMB	Link Plate/Link Bolt, Custom Cut Grade 12.9, M8 x 89mm, Dacromet
9	1	180048FBY	M8 Lock Nut
10	1	181092SIC	Bearing Housing
11	1	181089SIC	RMX Main Pivot Axle
12	2	181071INA 181071ABI	HK 1618 RS Needle Bearing
13	2	180234IGS	Thrust Washer
14	2	181072SIC	Main Pivot Insert
15	2	180032FBY	M6 x 16mm Button Head Cap Screw
16	2	180519FBY	M6 x 25mm Low Head Cap Screw
17	2	180019FBY	M6 Plastic Washer
18	6	181074INA 181074ABI	608V 2RS Cartridge Bearing
19	2	180200FBY	Cartridge Bearing Shim Washer
20	1	180457RMB	Swingarm/Link Bolt, Custom Cut Grade 12.9, M8 x 69mm, Dacromet



SWITCH

DESIGN

Switch means freeride versatility. The Switch line features a complete triangulated 4-bar linkage which offers 6" of rear travel with a lower leverage ratio and longer eye-to-eye shock length for the most versatile bike park, drag & drop, ride up freeride experience there is.



The Switch 4-Bar Suspension is actually a blend of two suspension frame technologies- the bomber Easton RAD tube front end from our RM platform and the Switch triangulated 4-bar linkage. This blend creates an extremely versatile set-up that offers medium to long travel suspension performance for big drops and hard descents. Yet Frame geometry and pedaling performance are optimized for those tighter sections of the trail or when you just need to climb. In short, not only do you get a bike for plush descending, you also get one which can be used in all kinds of different, hard riding situations.

FEATURES

- 100% Rocky Mountain Handbuilt Easton RAD tube front end and CNC-machined aluminum rear triangle components.
- Complete front triangle with overall slacker head and seat tube angles for more control on descents.
- Rear suspension has been engineered for a lower 3:1 leverage ratio and longer stroke shock length (7.5" eye-eye x 2.0") for an even plusher 6" of rear travel. Longer stroke shock allows for both air shock compatibility and increased manufacturer/consumer options.
- German engineered high load INA needle and cartridge bearings in pivot locations for more durability on big hits.
- Better standover clearance on 16.5" size for smaller riders.
- Switch SL model uses a lighter tubeset and an air shock to reduce frame weight by approximately 1.5 pounds.

4 BAR REAR TRIANGLE + LINKAGE ASSEMBLY

1. Tools required are Bench Press (Hydraulic or Manual), 4 and 5mm Allen Torque Ratchet.

2. Press fit IGUS Bushings-180003IGS into bored holes of R & LH dropout of 2005 Swingarm Assy-105915RMH. Insert Inner Ring-180026SIC into IGUS Bushings. Inner ring must have a slight resistance fit. Hand force is adequate.

3. Lightly grease the inside of the main pivot shell and the outside of the main pivot Bearing Housing-181033SOU, next press the Bearing Housing into the main pivot shell. ****NOTE**** Ensure the bearing sleeve hole is aligned with the grease-fitting hole at the rear of the main pivot shell. Lightly grease both sides of the inside of the Bearing Housing. Press in two Main Pivot Needle Bearings-181042INA, one on each side of the housing. Ensure the grease seal inside the bearing is to the **outside** of the bearing housing. ****Note** Before Installing the Main Pivot Shaft-181029INA through needle bearing main pivot, install an M8 bolt in the shaft to prevent grease from entering and contaminating the future use of a threadlocker.**

4. Fit Seatstay onto Chainstay, lining up the holes with the center of the inner rings. Secure the joint with a 6 X 20 mm zinc plated screw-180191FBY with 1 drop BLUE LOCTITE on the first 3 threads. Torque to a maximum 80 in/lbs. Ensure that the joint moves smoothly through its full motion.

5. Lightly grease and install the 2 Seatstay Pivot Inserts-181040FLW at the top of the seatstay yoke.

6. Ensure you have a separate right and left link plate. Apply a small amount of Retaining Compound/GREEN LOCTITE in the sockets and install the four - 3902 2RS Cartridge Bearings-181037INA or 181037ABI.

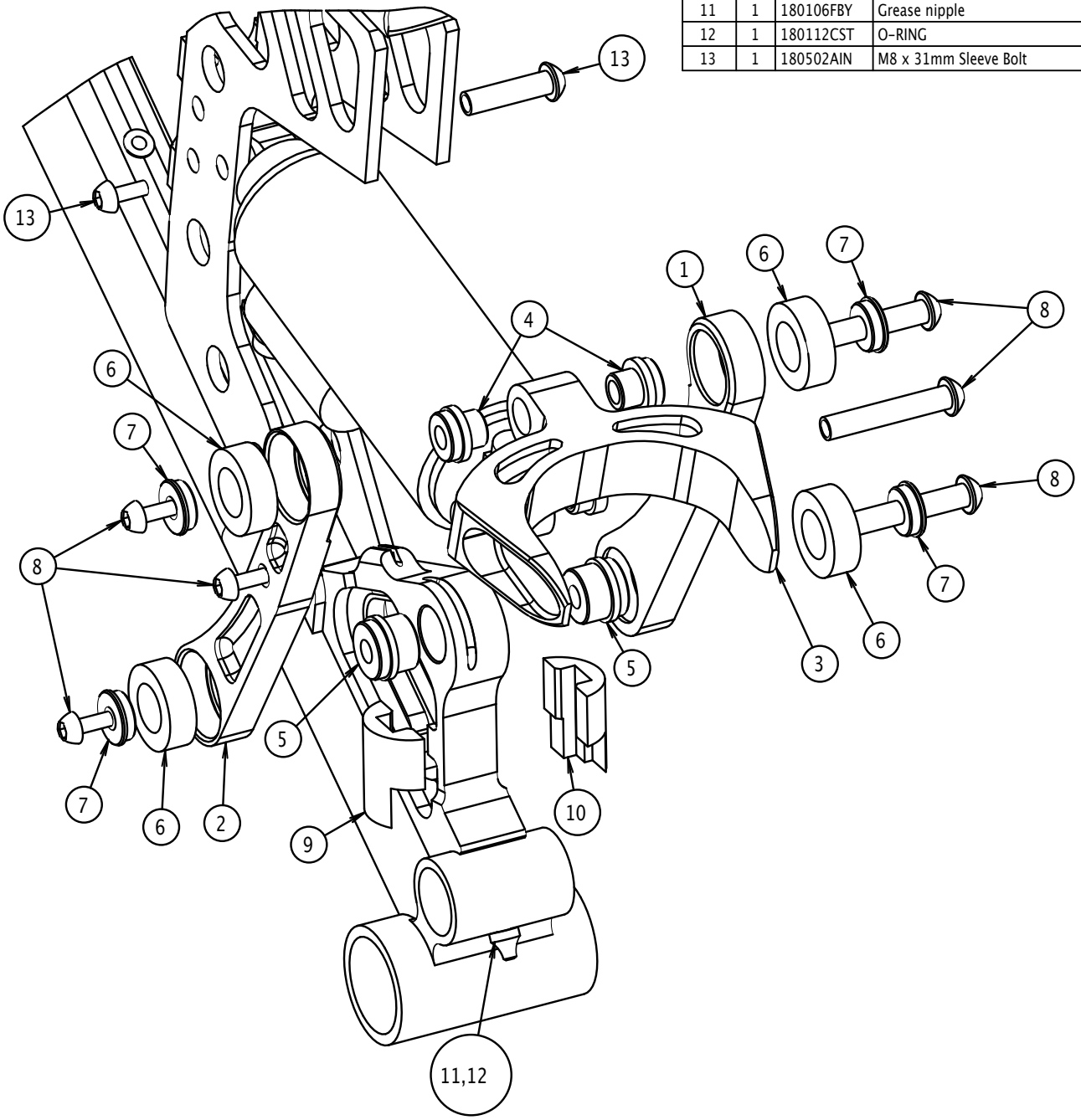
7. To install the bearings use a press and seat them all the way to the **bottom** of the Link Plate. Now return to assembling the Main Pivot junction. Slide the M8 Flat Washers-180049FBY over the M8x25mm Button Head Cap Screw-180270FBY and then apply one drop of Red Threadlocker to the last 5 threads. Holding a Thrust Washer-180234IGS on either side of the main pivot shell, carefully slide the Swingarm Assy. over the washers. Once the yoke is centered over the main pivot axle insert the two M8 Button Head Cap Screws and torque to 20 ft/lbs.

8. Next, lightly grease and insert the outer Bearing Inserts-181041FLW. Now connect the seatstay yoke to the pivot mount with the link plates. Be sure to install the link plates with the large slot down and to the front with the inside of the curve to the front of the frame. Install the shock-torque shock bolts to 100in/lbs and the remaining link plate bolts to 80 in/lbs.

2005 SWITCH LINKAGE DETAIL

TITLE:	SWITCH LINKAGE DETAIL				
DWG. NO.	700001-01	REV:	C	DATE:	06-15-2004
MODELS:	SWITCH (2005 - ALL)				

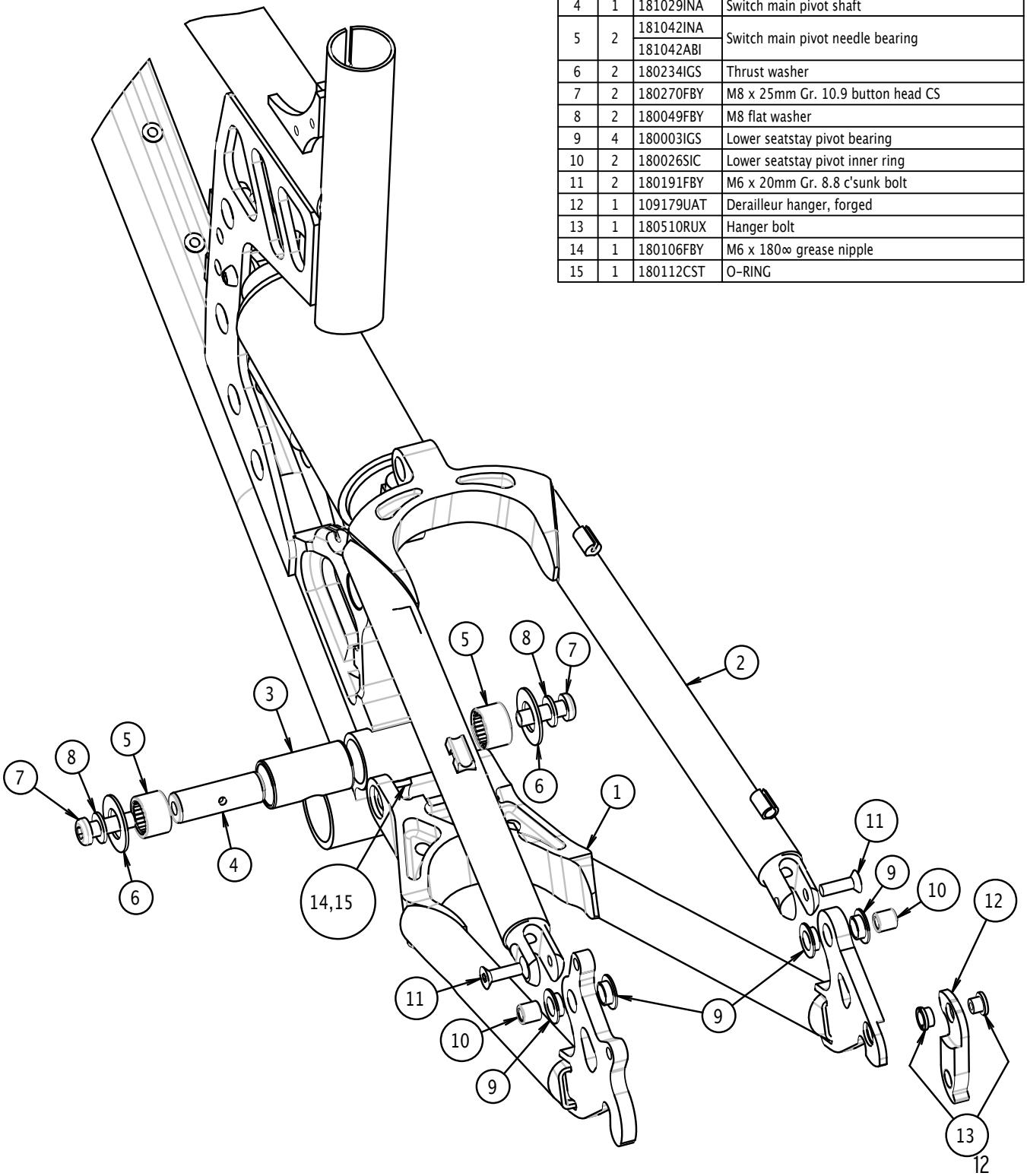
Item	Qty	RMB P/N	Description
1	1	180268RMB	Switch RH link plate
2	1	180269RMB	Switch LH link plate
3	1	105914RMH	2005 Switch Seatstay Assy
	1	105916RMH	2005 Switch SL Seatstay Assy
4	2	181040FLW	Switch seatstay pivot insert
5	2	181080FLW	Switch pivot mount insert
6	4	181037INA 181037ABI	3903 2RS Cartridge Bearing
7	4	181041FLW	M8 Bearing Insert, 17mm ID
8	3	181505AIN	M8 x 46mm Sleeve Bolt
9	1	180254RMB	LH derailleur mount
10	1	180253RMB	RH derailleur mount
11	1	180106FBY	Grease nipple
12	1	180112CST	O-RING
13	1	180502AIN	M8 x 31mm Sleeve Bolt



2005 SWITCH MAIN PIVOT DETAIL

TITLE:	SWITCH MAIN PIVOT DETAIL				
DWG. NO.	700001-02	REV:	C	DATE:	06-15-2004
MODELS:	SWITCH (2005 - ALL)				

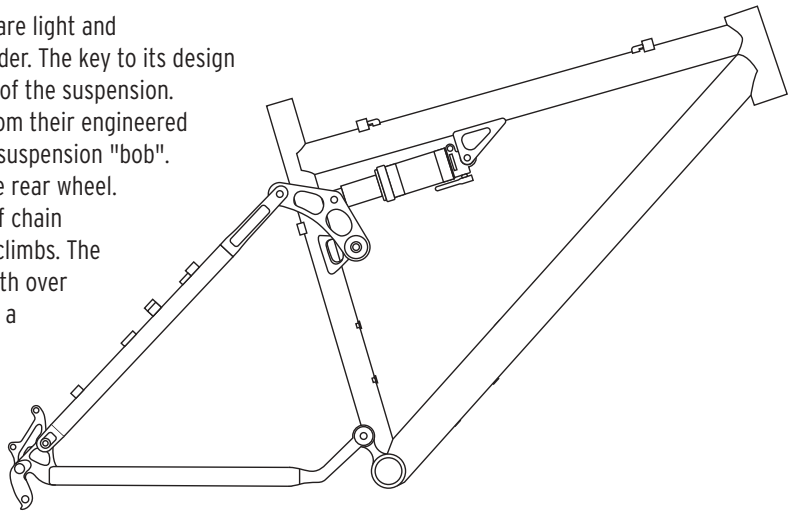
ITEM	QTY	RMB P/N	DESCRIPTION
1	1	105915RMH	2005 Swingarm Assy
	1	105917RMH	2005 Swingarm Assy (SWITCH SL)
2	1	105914RMH	2005 Seatstay Assy
	1	105916RMH	2005 Seatstay Assy (SWITCH SL)
3	1	181033SOU	Switch main pivot bearing housing
4	1	181029INA	Switch main pivot shaft
5	2	181042INA 181042ABI	Switch main pivot needle bearing
6	2	180234IGS	Thrust washer
7	2	180270FBY	M8 x 25mm Gr. 10.9 button head CS
8	2	180049FBY	M8 flat washer
9	4	180003IGS	Lower seatstay pivot bearing
10	2	180026SIC	Lower seatstay pivot inner ring
11	2	180191FBY	M6 x 20mm Gr. 8.8 c'sunk bolt
12	1	109179UAT	Derailleur hanger, forged
13	1	180510RUX	Hanger bolt
14	1	180106FBY	M6 x 180∞ grease nipple
15	1	180112CST	O-RING



ELEMENT

DESIGN

The 3D Link is simplicity in design at its best. 3D Link frames are light and incredibly stiff laterally for serious XC racing or the hard XC rider. The key to its design is that it doesn't rely on the shock as a structural component of the suspension. These full-suspension cross-country race bikes also benefit from their engineered pivot placement which optimizes pedal stroke and eliminates suspension "bob". This results in less wasted rider energy and more power to the rear wheel. We have reconfigured the rear pivot to increase the amount of chain growth, giving more traction in the small chainring for tough climbs. The new friction-free cartridge bearings keep the ride super smooth over blistering technical sections. The refinements to 3D Link make a great design even better. Whether it's an afternoon of ripping singletrack or hammering out a 24-hour relay, these bikes take you to the front. Enjoy.



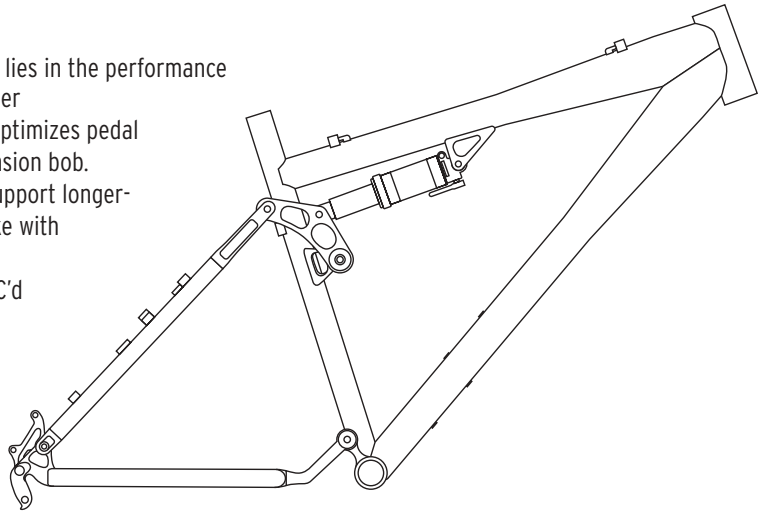
FEATURES

- Suspension parameters give increased travel (100mm) and increased chain growth for a smoother ride and increased climbing performance. Shock size is 6.5" eye-eye, 1.5" stroke.
- German-engineered high load INA cartridge bearings in pivot locations for durability and smooth performance.
- Forged and hand polished link plates.
- Frame design and geometry compatible with all 100mm travel forks.

SLAYER

DESIGN

100% pure All-Mountain. The beauty of the Slayer's long travel ride lies in the performance of its 3D Link™ system. With the Slayer's suspension, a slightly higher pivot placement results in a slight amount of chain growth which optimizes pedal stroke and keeps the rear wheel on the ground to eliminate suspension bob. Combine this with an Easton Custom OVAL RAD tube front end to support longer-travel forks, and you get all the front end strength of a freeride bike with Cross-Country performance, nimbleness, and weight. The linkage uses low-maintenance cartridge bearings, while the forged and CNC'd long travel 3D linkage is controlled by a Fox ProPedal rear shock. The ultimate go-anywhere, do-anything ride just got better than ever before.



FEATURES

- Light and durable Handbuilt Easton Custom OVAL RAD tube frame.
- Cold Forged link plates, swingarm and seatstay yokes.
- German-engineered high load INA bearings in pivot locations for durability and smooth performance.
- 125mm travel front and rear with cartridge bearings for a super plush but efficient ride.
- Revised top tube shock mount to allow for use of all larger diameter rear shock bodies (e.g. RockShox, Fox AVA)
- Shock length is 7.25" x 1.75".

3D LINK/ELEMENT AND SLAYER REAR TRIANGLE ASSEMBLY

RH + LH LINK PLATE SUB-ASSEMBLY-PLEASE REFER TO EXPLODEDVIEW DWGS NO. 700006-01, 700006-02, 700006-03.

1. Begin the assembly process by prepping all the bearing/bushing components.
    a. Starting with the right and left link plates. **Ensure surfaces are clean and free of any contaminants. We recommend using a loctite prep to ensure the bearing retaining compound hardens completely**.
    b. Apply a film of retaining compound ie; green Loctite to the bearing hole in link plate. Press in the 2 Seattube Pivot Bearing 181631ABI (larger hole).
    c. Next, also using a film of retaining compound press in the Upper Seatstay Cartridge Bearing to the other end of the link plate (smaller hole).
    d. Now move to the bottom bracket pivot. Press in 2 Cartridge Bearings-4 total 181075INA to each side of the BB pivot-it is **NOT** necessary to apply loctite at this location, as it is a pretty secure junction. Now, grease the Main Pivot Bearing Inserts 181058UAT and push them into the main pivot bearings. Moving to the chainstay rear dropouts, push in the yellow IGUS Dropout Pivot Bearings 180003IGS into bored holes in dropout 2 each side-4 total. Insert inner rings 181026SIC through IGUS Bearings. Inner ring must have a slight resistance fit but no tools should be used to install it.

2. Begin the attachment of the link plates and rear stays by installing the Seattube Pivot Frame Inserts 181055LOW with a little grease. Next, with the seattube Pivot Bearing Inserts 181054LOW installed in the larger cartridge bearing of the link plate mount the link plates onto the pivot frame inserts that are installed in the seattube pivot mount. Fasten this junction with the M8 x 79.5mm Sleeve Bolt 180514AIN and torque to 80 in/lbs. The rear shock can now be installed using the M8 x 31mm Sleeve Bolt 180502AIN for the front and M8 x 36mm Sleeve Bolt 180503AIN for the rear. Torque these to 100 in/lbs.

3. Next, attach the stays together at the rear dropout by lining up the holes and inserting the M6 x 20mm Countersunk bolt 180191FBY. Apply a drop of blue threadlocker on the first four threads only and torque to 80 in/lbs.

CHAINSTAY SUB-ASSEMBLY

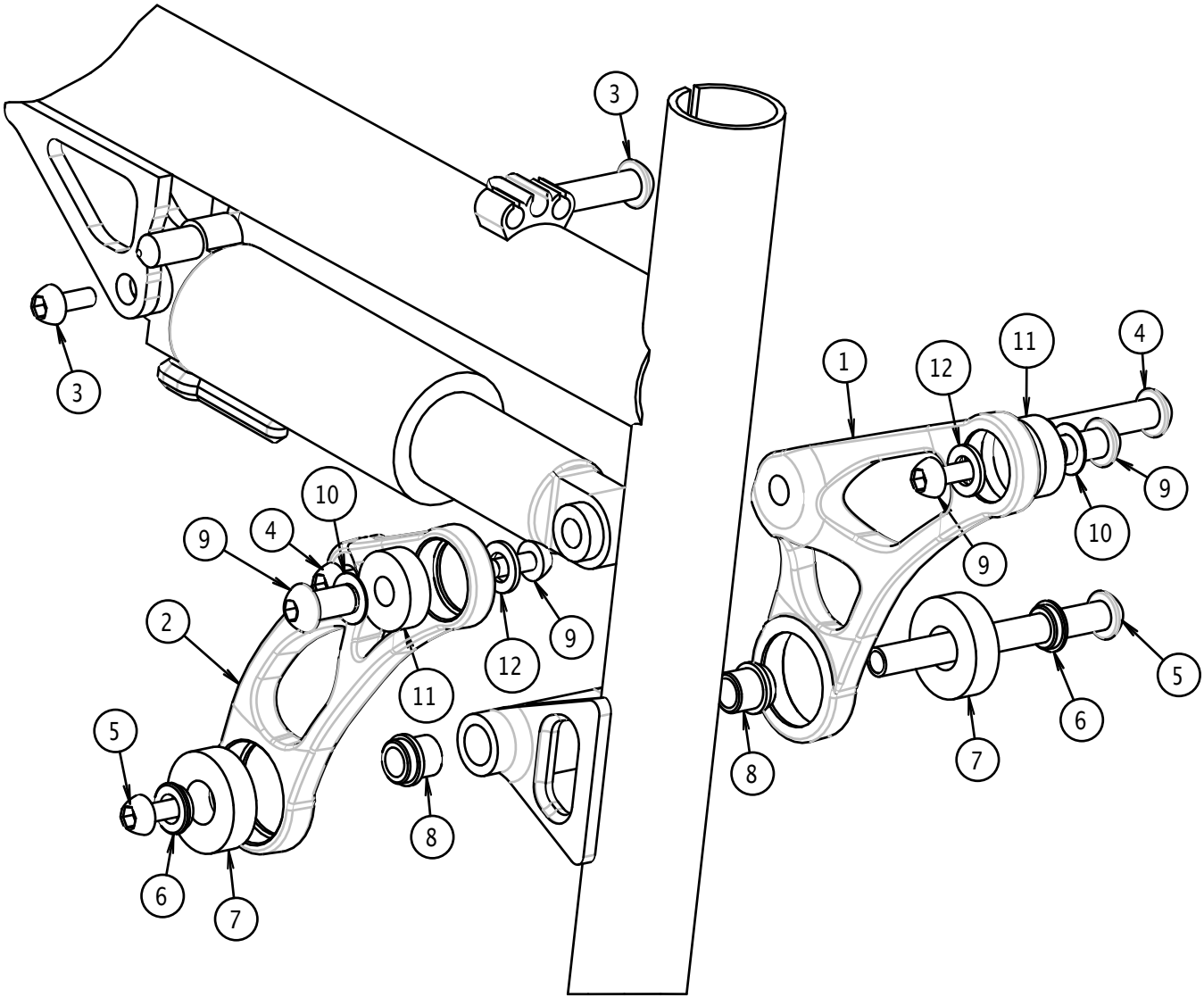
1. Next, attach the chainstay via the main pivot using the M8 x 59.5mm Sleeve Bolt 180501AIN. **Be sure to insert the sleeve through from the drive side to the non-drive side**. Now torque the bolt to 100 in/lbs.

2. Now connect the top of the seatstay to the link plates using the Cartridge Bearing Shim Washer 180200FBY and the Cartridge Bearing Inner Ring 180965UAT. **Ensure that the Inner Ring (the thicker one of the two) is on the inside of the link plate bearing and the Shim Washer (thinner one) is on the outside of the link plate bearing. Fasten this junction using the M8 x 14.5mm Sleeve Bolt 180500AIN and torque to 80 in/lbs.

2005 3DLINK™ LINK PLATE ASSEMBLY DETAIL

TITLE:	LINK PLATE ASSEMBLY DETAIL				
DWG NO.:	700006-01	REV:	C	DATE:	06-15-2004
MODELS:	2003 Edge/Slayer 2004/2005 Slayer/Element (ALL)				

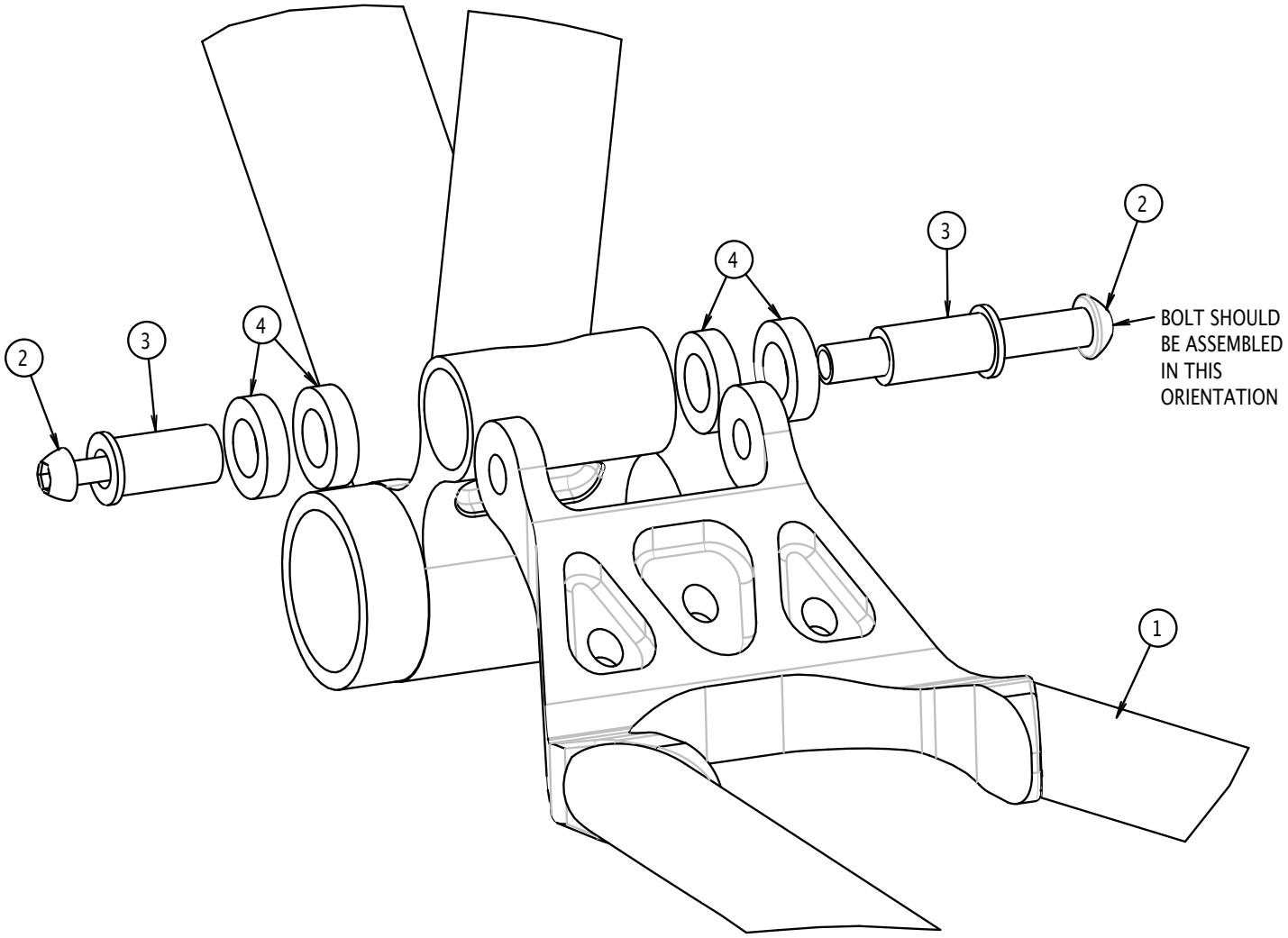
Item	Qty	RMB P/N	Description
1	1	181056UAT	Forged/polished RH Link Plate
	1	181068UAT	RH Link Plate - 15" Slayer, 15.0"/16.5" Element
2	1	181057UAT	Forged/polished LH Link Plate
	1	181069UAT	LH Link Plate - 15" Slayer, 15.0"/16.5" Element
3	1	180502AIN	Sleeve Bolt - M8 x 31mm
4	1	180503AIN	Sleeve Bolt - M8 x 36mm
5	1	180504AIN	Sleeve Bolt - M8 x 79.5mm
6	2	181054LOW	ST Pivot Bearing Insert
7	2	181063INA	ST Pivot Bearing
		181063ABI	
8	2	181055LOW	ST Pivot Frame Insert
9	2	180500AIN	Sleeve Bolt - M8 x 14.5mm
10	2	180200FBY	Cartridge Bearing Shim Washer
11	2	181074INA	608V 2RS Cartridge Bearing
		181074ABI	
12	2	180965UAT	Cartridge Bearing Inner Ring



2005 3DLINK™ BB PIVOT ASSEMBLY DETAIL

TITLE:	BB PIVOT ASSEMBLY DETAIL				
DWG NO.:	700006-02	REV:	C	DATE:	06-15-2004
MODELS:	2003 Edge/Slayer 2004/2005 Slayer/Element (ALL)				

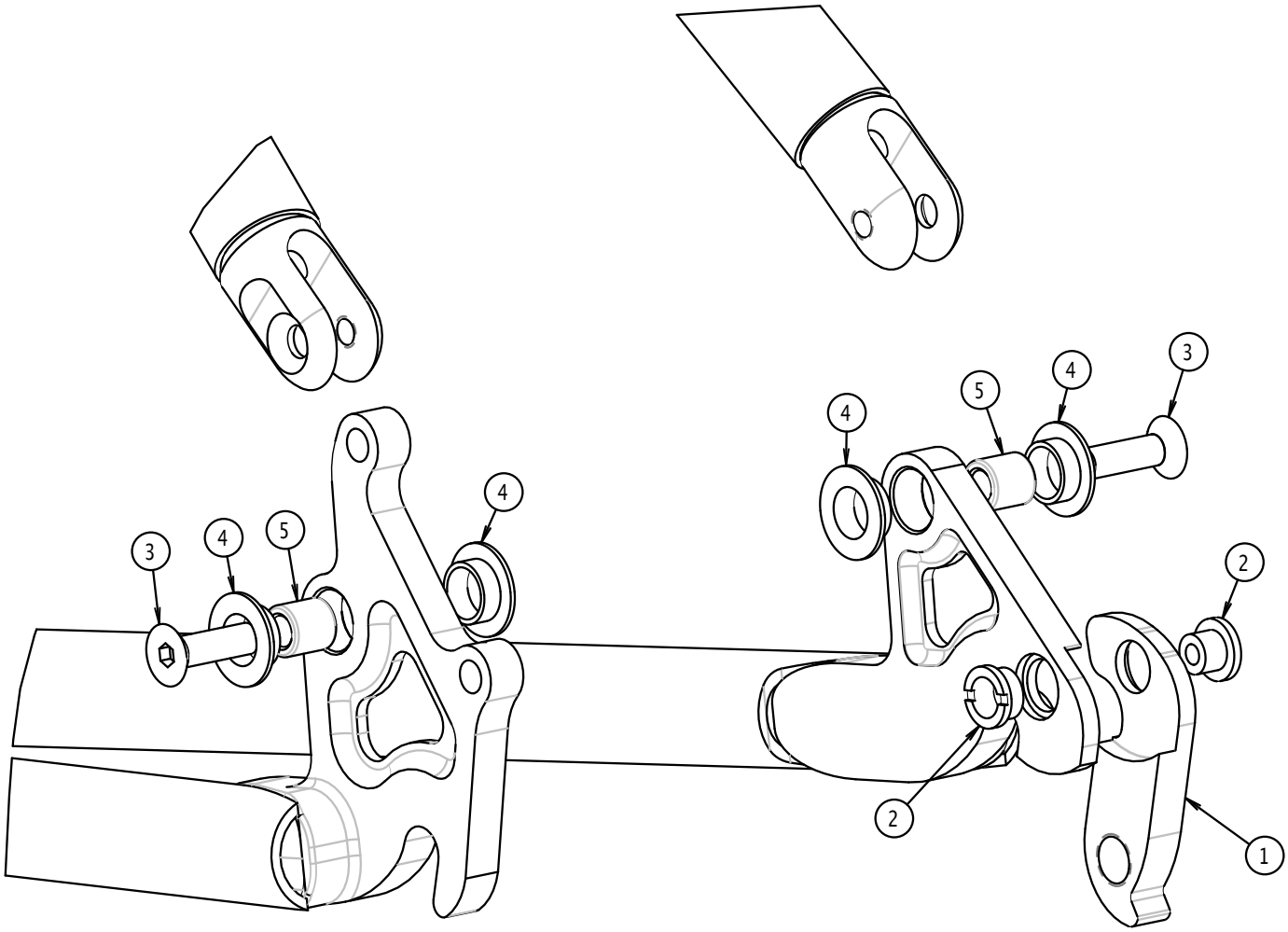
Item	Qty	RMB P/N	Description
1	1	105900RMH	Slayer Chainstay Assembly (ALL)
	1	105901RMH	Element Chainstay Assy (ALL)
2	1	180501AIN	Sleeve Bolt - M8 x 59.5mm
3	2	181058UAT	Main Pivot Bearing Insert
4	4	181075INA 181075ABI	61801 2RS Cartridge Bearing



2005 3DLINK™ DROPOUT PIVOT DETAIL

TITLE:	DROPOUT PIVOT DETAIL				
DWG NO.:	700006-03	REV:	B	DATE:	06-15-2004
MODELS:	2003 Edge/Slayer 2004/2005 Slayer/Element (ALL)				

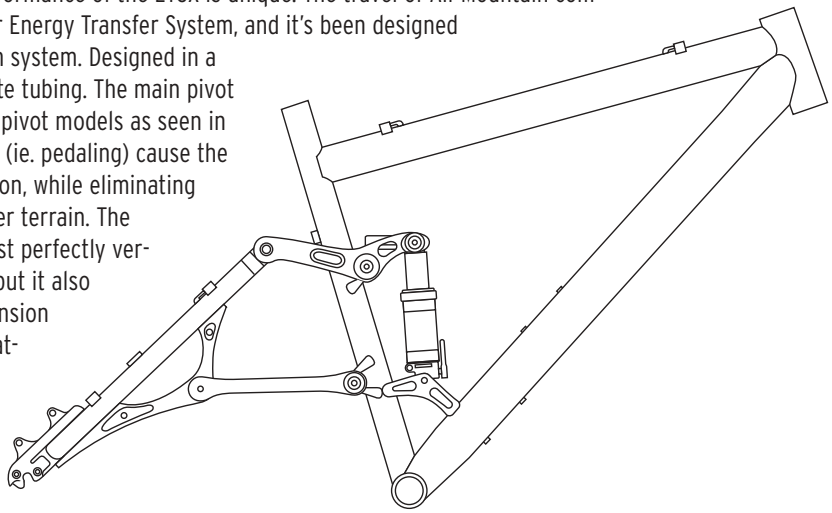
Item	Qty	RMB P/N	Description
1	1	109179UAT	Derailleur Hanger
2	1	180510RUX	Hanger Bolt
3	2	180191FBY	M6 x 20 Countersunk SHCS
4	4	180003IGS	Dropout Pivot IGUS Bearing
5	2	181026SIC	Dropout Pivot Inner Ring



ETSX

DESIGN

ETSX fits a completely new category of rider: You. The performance of the ETSX is unique. The travel of All-Mountain combined with the performance of a race bike. ETSX stands for Energy Transfer System, and it's been designed from the ground up to be the most efficient XC suspension system. Designed in a Handbuilt frame made from Easton Custom BI OVAL Ultralite tubing. The main pivot location of the ETSX linkage - which is based on projected pivot models as seen in Formula 1 racing suspension - is such that the drive forces (ie. pedaling) cause the rear wheel to actually dig into the ground for better traction, while eliminating suspension bob. In short, you get a faster ride over rougher terrain. The secret lies in the fact that the rear axle travels in an almost perfectly vertical path. This causes a more precise reaction to bumps, but it also creates the optimal amount of chain growth. As the suspension compresses, it increases chain tension, rather than dissipating this energy, it drives the rear wheel forward. Thus, the transfer of energy. ETSX suspension has three adjustments: Race (3.5"), Epic (4.0"), and All-Mountain (4.5"). With the travel of an All-Mountain bike and the climbing performance of a full on race machine, you've never had it so good.



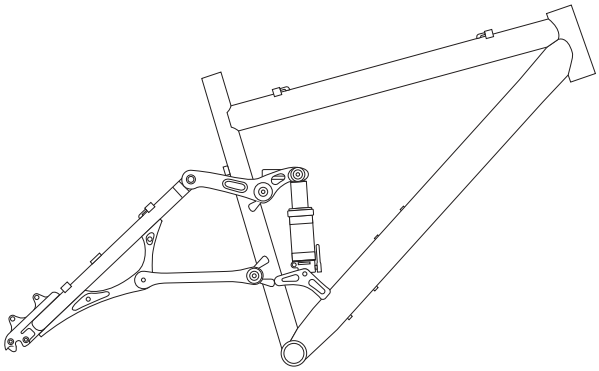
FEATURES

- Handbuilt with an Easton Ultralite custom oval top tube and a larger diameter custom bi-oval Easton Ultralite down tube.
- Seat stay assembly with a revised yoke featuring clevis-style attachment points to upper links for increased stiffness and lighter weight.
- Hand polished linkage with increased stiffness and new double row cartridge bearings at the seat tube pivot.
- German-engineered high load INA cartridge bearings in pivot locations for durability and ultra smooth performance.
- Redesigned seat tube and bottom shock mounts for even lighter weight.
- All fasteners upgraded to durable smooth finish sleeved bolts for increased rear end stiffness and a finished look.

ETSX EXPLAINED

ETS stands for Energy Transfer System, and the X refers to [X-Project], the projects original code name. The design of the ETSX (see Figure 1) was inspired by suspension systems in one of the world's most demanding race arenas – Formula-1 racing.
The ETSX suspension is in fact a modified version of the wishbone
suspension found on Formula-1 race cars.

Figure 1. ETSX frame



Here's how the suspension works. Before we start, however, we need to explain some suspension basics. First, picture a bike with a swingarm that pivots around a point on the front of the frame, as the one shown below in Figure 2. For now, we will ignore the shock and how the swingarm connects to the shock – we will focus only on the main swingarm. Most existing full-suspension bikes are a variation on this theme.

Obviously, you do not want the swingarm to rotate up in response to drive forces (case 2) as this is what causes suspension bob. Stay away from bikes like this. Most suspension bikes are designed so that drive forces cause no swingarm rotation (case 1).

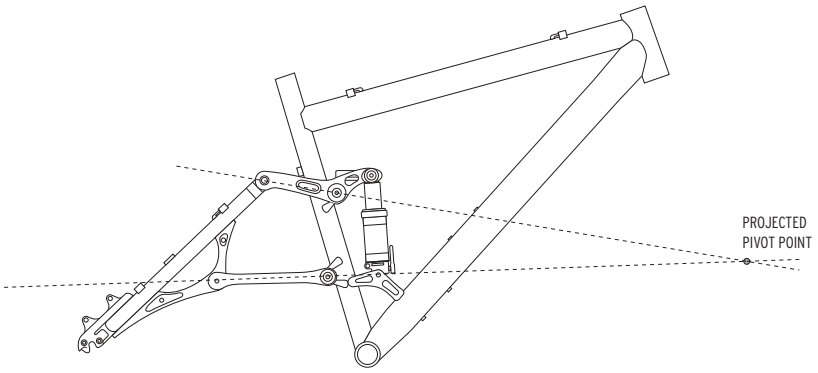
We started wondering what would happen if we designed a bike so that drive forces would actually cause the swingarm to rotate down slightly (case 3). With such a bike, drive forces would actually cause the rear wheel to dig into the ground and give you better traction.

Given this insight, we went back to the drawing board and asked ourselves where the ideal pivot would be for a suspension bike. As you have seen, we felt that a higher pivot might be beneficial. However, that posed a problem. Move the main pivot any higher on most bikes and you run into the front derailleur. Since only downhillers are willing to ride with only a big chainring, this solution clearly wouldn't work for cross-country. Too high of a pivot wouldn't work either because there would be too much of a tendency for the swingarm to rotate downwards every time you pedal. Your suspension would top out every time you stepped on it.

At the same time, moving the pivot as far forward seemed to be a good idea. This would increase the effective lever arm (L1) of the bump forces relative to the lever arm for the drive forces. This is key for making a suspension react to the ground, but not to pedaling. We decided that the ideal pivot location was actually out in front of the bike and higher than existing pivots.

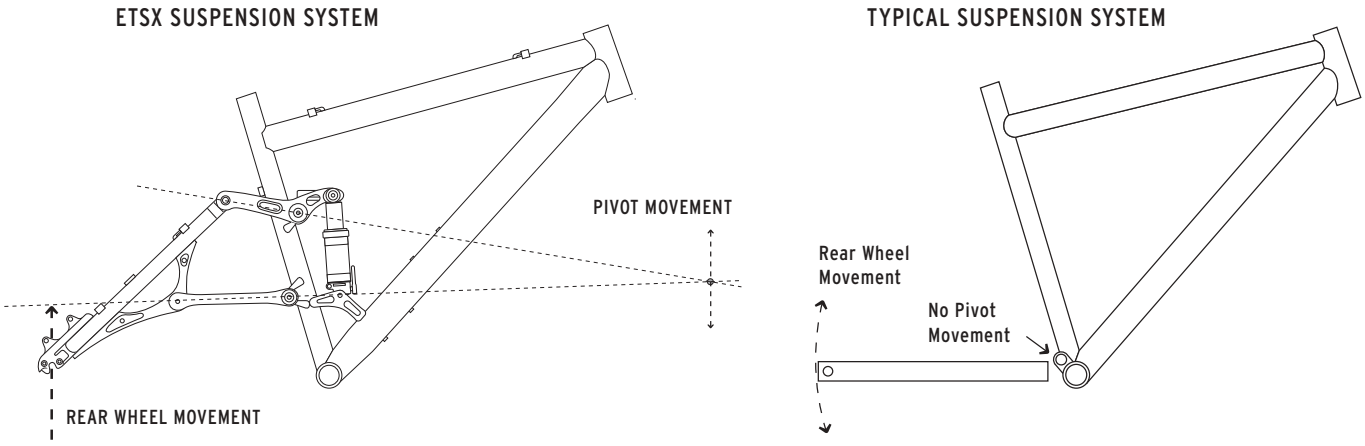
But how do you make a pivot in free space? The answer is to create a projected pivot using a linkage similar to that found on formula-1 race car suspensions. In these types of systems, you can find the pivot by drawing a line through each of the two connecting linkages and extending them until they intersect as shown in Figure 4. At any given point, the rear axle travels as if it were rotating about this projected pivot point.

Figure 2. ETSX Pivot Location



The radical ETSX linkage allows us to precisely control the location of the pivot and how it changes throughout the suspension's travel. Note that the suspension's location will cause the wheel to dig into the ground when pedaling. Note also that as the suspension travels, the pivot point can move. Being able to change the pivot point throughout the suspension travel is a great advantage. We have optimized the projected pivot point on the suspension to give exceptional traction and absolutely no suspension bob.

Figure 3. ETSX vs. typical suspension movement



The other secret to the ETSX system's performance is that the path the rear axle travels is almost perfectly vertical. The vertical travel allows the rear wheel to react precisely to ground bumps. It also helps a bike roll better over rough terrain, gliding over tough sections instead of hooking obstacles. Vertical wheel travel also creates just the right amount of chain length increase. Along with the pivot point, chain length increase is the other key factor in the ETSX suspension's performance. As the suspension compresses, the distance between the rear dropout and the bottom bracket increases slightly. This increase in chain length is actually very beneficial. When the suspension compresses, it increases the tension in the chain just slightly. This in turn causes the rear wheel to drive forward. Energy from the suspension is actually used to create forward motion, rather than simply being dissipated. Hence the Energy Transfer System.

Finding the optimal pivot location along with the optimal chain length increase took many experiments and iterations. However, we believe we have created what could be the best cross-country full-suspension system on the planet. ETSX test riders have raved about the suspension's performance. Some have even said that they could keep up with road bikes on the pavement in a sprint!

Frame Design

Around this radical new suspension system, we designed a totally new cross-country frame. Riders wanted smoother suspension action. The ETSX system uses super-smooth cartridge bearings in every single pivot. Not just the main pivots, but in every single one. These bearings deliver absolutely friction-free performance that allows the suspension to react instantaneously to even the smallest bump.

Realizing that riders would tackle all sorts of terrain on their new bikes, we not only gave them 25% more suspension travel than the 3D link design, but we made it adjustable. The ETSX's simple Quick-Adjust system gives the rider three suspension options: RACE mode (3.5" travel), EPIC mode (4.0" travel), and the long-travel ALL MOUNTAIN mode (4.5" of supple suspension travel). All this adjustability can be done quickly and easily on the trail. No tools required.

Topping off the package, The ETSX is the first bike in the world to use Easton's innovative Ultralite custom OVAL tubing. Rocky Mountain engineers worked with Easton's engineers to come up with the perfect custom tubeset designed specifically for the ETSX frames. . Custom features include special wall thicknesses and a downtube ovalized at the bottom bracket end to increase lateral stiffness by 30%. The frame is lovingly built in Rocky Mountain Bicycle's own British Columbia factory with Rocky Mountain's famous Handbuilt quality.

ETS-X REAR SWINGARM + LINKAGE SETUP

ETS-X REAR SWINGARM + LINKAGE SETUP. PLEASE REFER TO EXPLODED VIEW DWGS NO. 700007-01, 700007-02, 700007-03

1. Begin by installing rear shock at the lower shock mount position with M8 x 37mm Sleeve bolt. Torque to 100 in/lbs.

2. Next is installing the bearings into the link plates, lower linkage and seatstay assembly. **Make sure all parts are clean and free of contaminants-Retaining Compound will not harden if parts are not clean and dry. We recommend using a Loctite Prep to clean bearing surface before using the Retaining Compound. Using this will assure hardening of retaining compound.** With a film of Retaining Compound ie; Green Loctite, in the Upper Link Plates 181180UAT (LH) and 181181UAT (RH), press 1x181081ABI into upper seattube pivot mount position and 1x181064ABI into upper seatstay/clevis position. Now, also with a film of Retaining Compound press in 2x181064ABI into Lower Linkage 181185UAT. Finally press in the remaining 2 bearings 181064ABI into the ETSX Seatstay Assembly 105903RMH.

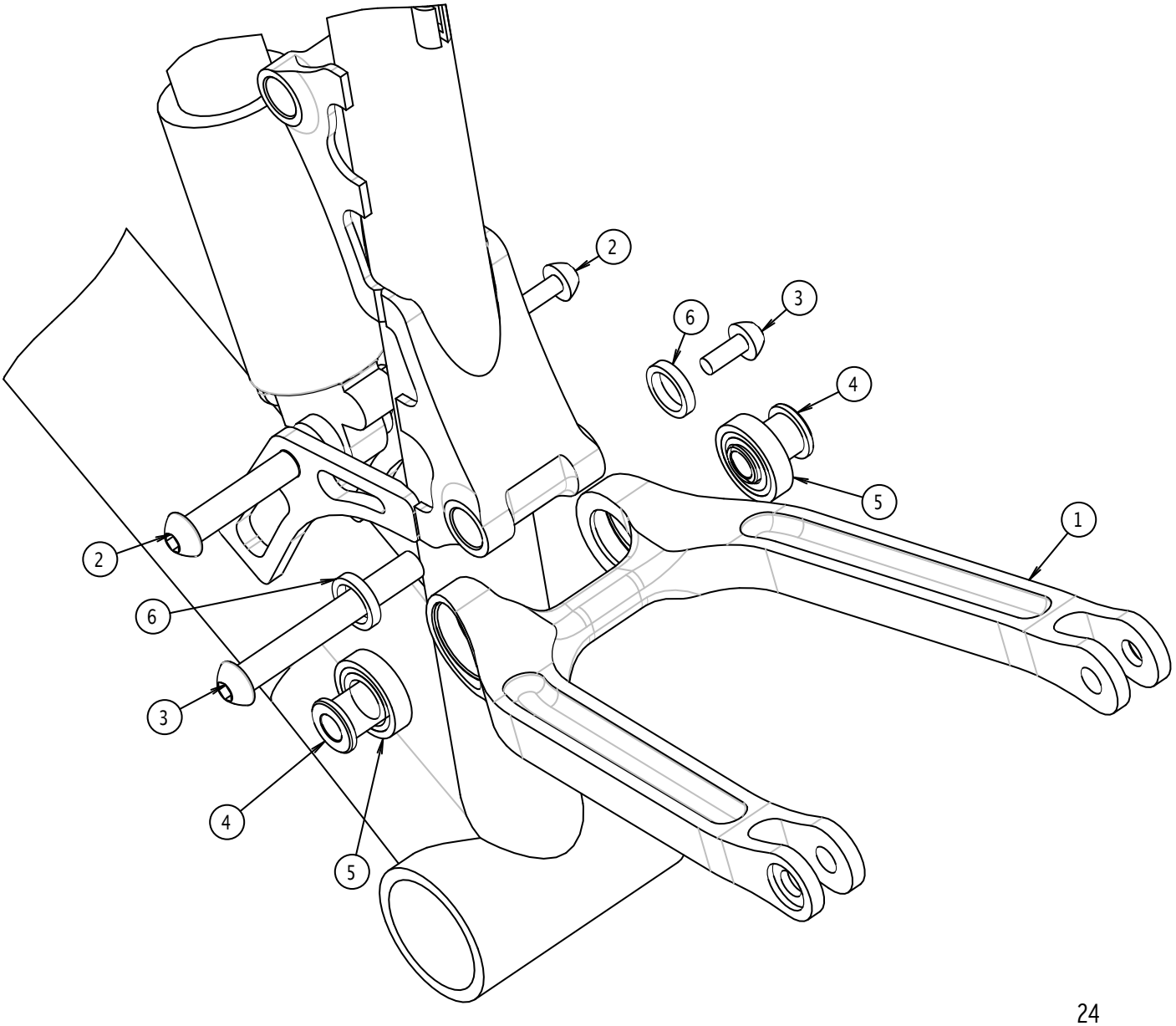
3. **The remaining assembly of bearing and frame inserts will require a film of grease at all connection points**. Let's start with the right and left upper link plates. With bearing installed, install the Full Bearing Inserts 2x181183UAT through bearings. On the frame side of the bearing with inserts engaged, apply the Full Bearing Insert Ring 180961UAT to the Full Bearing Insert. Slide the right and left link plates into the upper seat tube pivot mount and install the M8x 75mm Sleeve Bolt 180511AIN. Torque to 80 in/lbs. You can now loosely install the upper shock mount Quick Release Lever 180440FME. The lower linkage assembly is simple. Install both Lower Link Full Bearing Inserts-don't forget the grease-this will help hold the insert rings in place. Apply Insert Ring 180961UAT to the full bearing insert. With the inserts only engaged through bearing enough to hold the insert ring, slide the lower linkage onto lower seattube pivot and push inserts through pivot. Using the M8 x 63mm Sleeve Bolt, torque to 80 in/lbs.

4. The final step of installing the seatstay assembly involves the same procedure repeated 4 times. Install 2 M8 Bearing Inserts 181182UAT to each of the remaining locations. Fasten each area with the M8 x 16mm Sleeve Bolt 180513AIN and torque each of the 4 bolts to 80 in/lbs. Installation is complete.

2005 ETSX LOWER LINK/REAR SHOCK DETAIL

TITLE:	LOWER LINK/REAR SHOCK DETAIL				
DWG NO:	700007-01	REV:	A	DATE:	06-14-2004
MODELS:	2005 ETSX (ALL)				

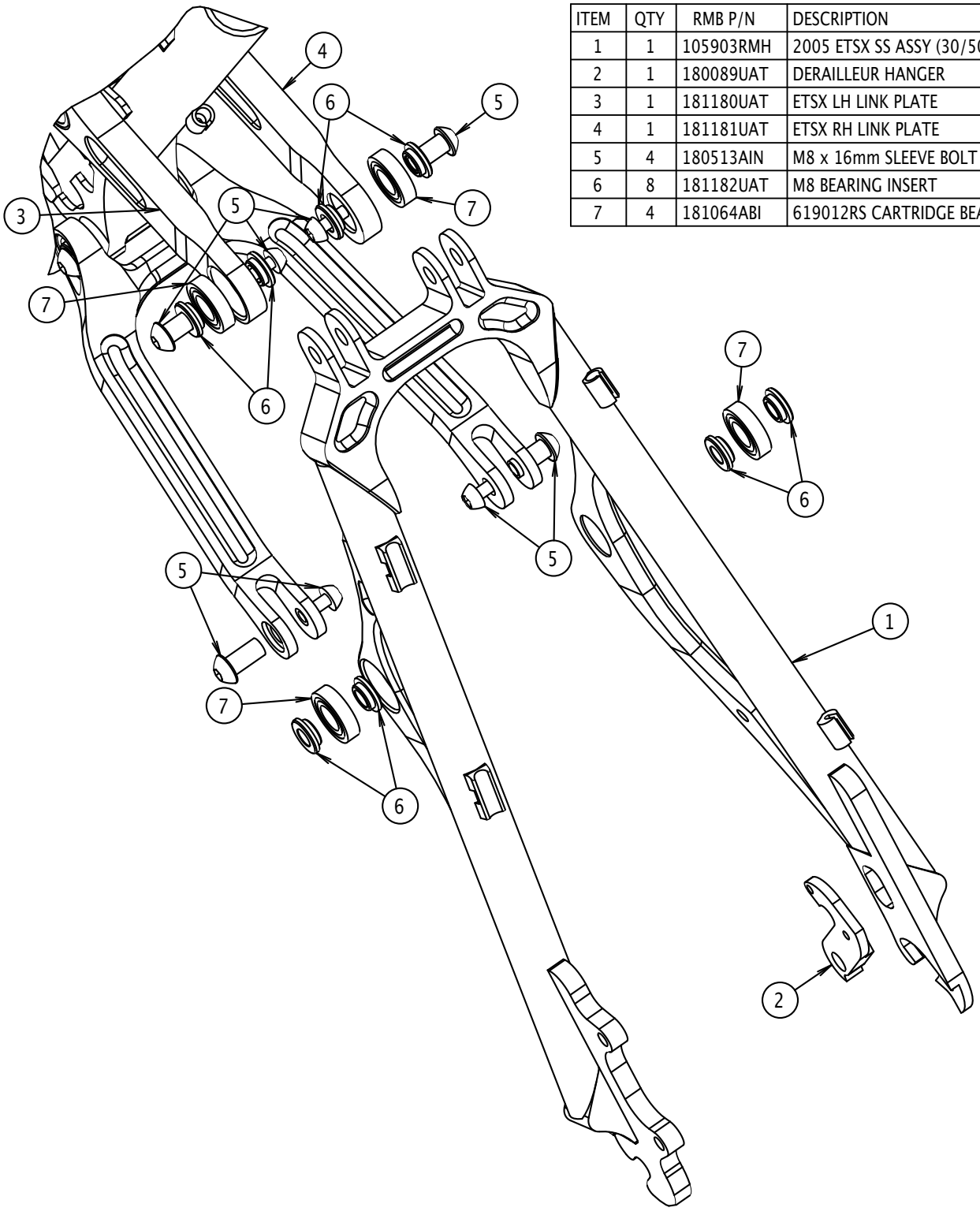
ITEM	QTY	RMB P/N	DESCRIPTION
1	1	181185UAT	ETSX LOWER LINK
2	1	180514AIN	M8 x 37mm SLEEVE BOLT
3	1	180512AIN	M8 x 63mm SLEEVE BOLT
4	2	181184UAT	LWR LINK FULL BEARING INSERT
5	2	181064ABI	619012RS CARTRIDGE BEARING
6	2	180961UAT	FULL BEARING INSERT RING



2005 ETSX SS ASSEMBLY DETAIL

TITLE:	ETSX SS ASSEMBLY DETAIL				
DWG NO:	700007-02	REV:	A	DATE:	06/14/2004
MODELS:	2005 ETSX (30/50/70)				

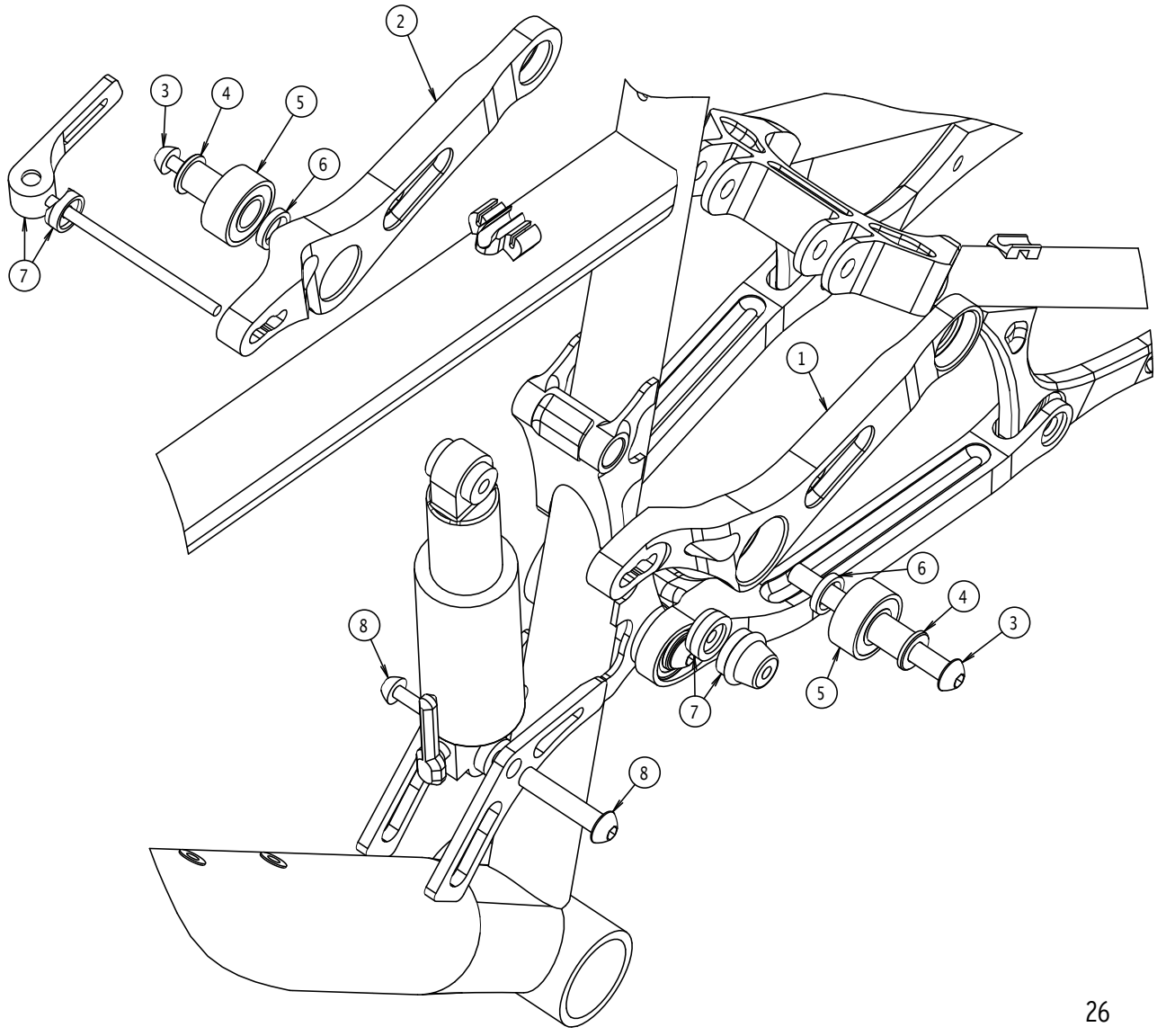
ITEM	QTY	RMB P/N	DESCRIPTION
1	1	105903RMH	2005 ETSX SS ASSY (30/50/70)
2	1	180089UAT	DERAILLEUR HANGER
3	1	181180UAT	ETSX LH LINK PLATE
4	1	181181UAT	ETSX RH LINK PLATE
5	4	180513AIN	M8 x 16mm SLEEVE BOLT
6	8	181182UAT	M8 BEARING INSERT
7	4	181064ABI	619012RS CARTRIDGE BEARING



2005 ETSX UPPER LINKAGE DETAIL

TITLE:	ETSX UPPER LINKAGE DETAIL				
DWG NO:	700007-03	REV:	A	DATE:	06-14-2004
MODELS:	2005 ETSX (ALL)				

ITEM	QTY	RMB P/N	DESCRIPTION
1	1	181180UAT	ETSX LH LINK PLATE
2	1	181181UAT	ETSX RH LINK PLATE
3	1	180511AIN	M8 x 75mm SLEEVE BOLT
4	2	181183UAT	UPR LINK FULL BEARING INSERT
5	2	181081ABI	3001 2RS CARTRIDGE BEARING
6	2	180961UAT	FULL BEARING INSERT RING
7	1	180440FME	ETSX QUICK RELEASE
8	1	180514AIN	M8 x 37mm SLEEVE BOLT



WARRANTY

At Rocky Mountain Bicycles we stand behind every bike we build. If anything goes wrong with your bike, contact ANY authorized Rocky Mountain Bicycles dealer in your area. To locate your closest ROCKY MOUNTAIN® dealer, you can check the dealer listing on the website, log on to www.bikes.com or call our Customer Service department at (604) 527-9993 or fax at (604) 527-9977.

To help ensure any warranty issues or concerns you may encounter can be dealt with speedily, log on to www.bikes.com, follow the links and register your new ROCKY MOUNTAIN®

We cover your frame from the date of purchase of your new ROCKY MOUNTAIN® according to the frame material and the type of use against defects in material and workmanship:

CroMoly Steel - MTB	Lifetime of Owner limited*
Aluminum and Steel – Road	5 years – limited*
Aluminum - Hybrids	Lifetime of Owner limited*
Aluminum Front-Suspended**	5 Years - limited*
Aluminum Fully-Suspended**	5 Years - limited* Hardware, suspension pivots and bushings, 1 year
Downhill and Freeride	6 Months - limited* Hardware, suspension pivots and bushings, 6 months.

*Limited warranty refers to the limitation stated in sections 4, 5, 6, 7 and 8 in your ROCKY MOUNTAIN® Owner's Manual, also listed below. All frames covered for perforation and corrosion for one year from date of purchase.

** Paint and decals are warrantied against defects in workmanship and materials for 1 year. Normal wear and tear are not covered.

Length of Warranty of Components

The components, including the suspension fork, rear shock, drive train, brakes, wheels, seat post, saddle, handlebars and stem etc., are covered by the respective manufacturer's warranties.

What is Not Covered

1. Normal wear and tear on tires, tubes, brakes, gear cables, brake pads etc., are not covered. Your authorized ROCKY MOUNTAIN® dealer will inform you of what these normal maintenance items consist of.

2. Consequential damage or any damage caused by accident, misuse or abuse.

3. Improper assembly and/or lack of proper maintenance, sandblasting, sanding, grinding, wire brushing, filing, welding, brazing, drilled holes, anodizing, repainting, or chrome plating is not covered under your warranty and may void the warranty of the component manufacturers. Internal rust perforation on CroMoly steel frames is not covered under warranty.

4. You take great personal risk and shall forfeit the warranty, as outlined in the Warranty Table, when you ride in extreme ter rain as depicted in mountain bike videos. I.e. ride "trials" style courses, ride ramps, do stunts, ride on BMX tracks, ride in the city down stairs and embankments, or ride in other similar terrain. It is important to note that bent components, frames, forks, handlebars, seat posts, pedals, cranks and wheel rims are signs of accidents and/or abuse.

5. Labour not included.

What Will Void Your Warranty

1. Competition racing and any commercial activity i.e. Rental fleets, courier use, Police or security use.

2. Installing or modified components other than those originally installed, or recommended by Rocky Mountain Bicycles.

3. Purchasing a Rocky Mountain Bicycle from an unauthorized dealer.

Making a Warranty Claim

1. Contact ANY authorized Rocky Mountain Bicycles dealer in your area. If you do not know where your closest ROCKY MOUNTAIN® dealer is, you can check the dealer listing on the website, log on to www.bikes.com or call our Customer Service department at (604) 527-9993 or fax at (604) 527-9977.

2. You will need to provide your authorized ROCKY MOUNTAIN® dealer with proof that you are the first owner by showing your original sales receipt.

3. If you have moved or no longer do business with the ROCKY MOUNTAIN® dealer you bought your bike from, any other ROCKY MOUNTAIN® dealer you choose is authorized to handle your warranty questions. Your local authorized dealer will provide the quickest answers and solutions for your warranty questions.

4. Bring the complete bicycle to your authorized ROCKY MOUNTAIN® dealer for inspection.

5. If the frame is to be returned to the factory, you or your dealer will strip the frame of all components including the bottom bracket and headset prior to shipping.

6. Rocky Mountain Bicycles reserves the right to repair or replace warranty claims.

International Dealers Contact Your Local Distributor