THE BIG REVOLUTION

# HARDTAIL OWNER'S MANUAL 2.0

# Owner's Manual
# Hardtails 2.0

This owner's manual has been put together to help you care for and adjust your Niner hardtail. There are specific chapters geared towards your specific needs (steel care, EBB, etc.) so please make sure to read ALL of the chapters that pertain to your Niner model in order to get the most out of this book. We understand that you would rather be riding than reading, so we will try to be as brief and succinct as possible, but the information contained within these pages is worth your time (at least we think so).

There should also be a general Owner's Manual that contains your warranty registration card. Please make sure to fill this out and send it in to activate your Niner warranty. If you did not get one with your bicycle, contact Niner directly, or your local Niner bicycle dealer you purchased your Niner from.

Besides that, go out and have fun, and ride safe.

**Chris & Steve**
**Niner Bikes**

## TABLE OF CONTENTS

## THE BASICS

All Niner bikes have design characteristics that make them uniquely Niners. Our geometry is specific to our frames and more important, specific to the 29" wheel.

**WARNING! Niner hardtail frames are compatible with single crown forks with 100mm (4") of travel or less. Use of a different style fork or longer travel may result in catastrophic failure of the frame which may lead to serious injury. Use of a longer or different style fork voids the warranty.**

Standover height is a critical component to our frames, and each one is designed with maximum standover height in mind. To this end, it is recommended to use at least a 400mm seat post with ALL of our hardtails.

**WARNING! Be sure to use AT LEAST a 400mm seatpost with your Niner hardtail frame and insure that the seatpost is inserted PAST the seatpost's minimum insertion line.**

The chart below is a quick rundown of all of the sizes necessary to build your Niner. If you've gotten to this chart post build, you've probably already figured it out.

| Model | Seat Post Diameter* | Seat Collar | Front Der. Clamp | BB Shell |
|---|---|---|---|---|
| **ONE 9** | 31.6mm | 35mm | n/a | 68mm |
| **AIR 9** | 31.6mm | 35mm | 34.9mm | 68mm |
| **E.M.D. 9** | 31.6mm | 35mm | 34.9mm | 68mm |
| **S.I.R. 9** | 27.2mm | 29.6mm | 28.6mm** | 68mm |
| **M.C.R. 9** | 27.2mm | 29.6mm | 28.6mm | 68mm |

*400mm+ length recommended

**For instructions on how to run your S.I.R. 9 as a geared bike, please turn to page 6

## STEEL FRAME CARE

NINER BIKES STRONGLY RECOMMENDS THAT YOU APPLY FRAME SAVER® TO YOUR NEW STEEL FRAME. PLEASE FOLLOW THE MANUFACTURER RECOMMENDATIONS FOR APPLICATION. YOU MAY SEE SOME RUST WITHIN THE FRAME ALREADY; THIS IS ONLY MINOR AND NOT CAUSE FOR ALARM, HYSTERICS, OR NIGHTS OF LOST SLEEP. AFTER INSTALLING THE FRAME SAVER® ALL WILL BE GOOD AGAIN. WE WOULD HAVE INSTALLED FRAME SAVER® PRIOR TO SHIPPING BUT IT IS A COMBUSTIBLE MATERIAL AND WOULD REQUIRE US TO HAVE TO CHANGE OUR STORAGE FACILITY TO MEET THE VENTILATION NEEDS SET FORTH BY THE CITY. WE WOULD ALSO HAVE TO SUBSTANTIALLY INCREASE THE SHIPPING COSTS TO YOU DO TO THE INCREASED PACKAGING REQUIRED BY FEDERAL LAW.

BELOW IS AN ARTICLE BY PETER WEIGLE RE-PRINTED WITH PERMISSION:

**OUT OF SIGHT, OUT OF MIND - RUST NEVER SLEEPS**
**BY PETER WEIGLE**

*Steel frames rust, that's all there is too it. They rust when scratched, chipped, or abraded in any way. Most people know this. What they don't know is that steel frames also rust from the inside out.. The steel inside the frame is almost always left raw and unprotected. If a little moisture enters the frame, the environment within will resemble a terrarium. The humid air and water droplets will be attacking the steel and you won't even know it. Left untreated, the frame will be destroyed.*

*To help prevent rust inside steel tubes, Frame Saver® was developed. It is a product that was long overdue. It coats the inside of the steel tubes protecting them from the corrosive elements that find their way there. True, bicycles have been around for 100 years and there are plenty of early examples of frames that have lasted lifetimes without rust, so why all the fuss now? Because in the last couple of decades there have been major changes in materials, equipment, and bike usage that have made internal frame protection even more important.*

CONTINUED NEXT PAGE

## Steel Frame Care

*Today's high performance frames are being made with extremely thin walled tubing compared to frames of the past. There used to be a safety margin should the tubes rust. Not any more! There are a few construction details found in some frames that have trapped water and caused premature failures. Frame builders who do repair work, painters and mechanics, are seeing a higher incidence of rust-throughs these days, and it is only going to get worse, unless these frames are rustproofed on the inside. Most new bikes are equipped with sealed bearings, which mean fewer overhauls and fewer chances to look in the bottom bracket to see what is going on. After many carefree miles, many mechanics and owners are shocked when they pull the bottom bracket bearings and find rust-colored sludge, or flakes of rust, inside the shell. Hopefully, it's not too late to save a frame in this condition.*

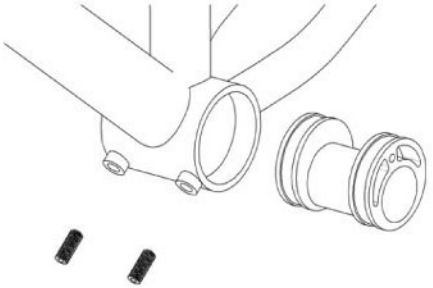
*Mountain bikes are supposed to be used in extreme conditions. Stream crossings, fall, winter, and early spring rides all involve, among other things, water.*

*Even if you don't ride in the rain or cross raging rapids, moisture still finds its way into a frame. Take your bike out of a warm house on a cool, damp day, or on a hot day return your bike to a cool, damp basement for storage and what happens? As the warm air inside your frame cools and contracts, it pulls in the damp air past the seat post, threads, and vent holes. This may only be a minute amount, but do this many times over the course of the season and the cumulative effect can be devastating.*

*It would be misleading to suggest that every steel frame is a risk because there are many factors involved. It is impossible to tell from the outside, which frames are screaming for attention. Why take a chance? With the cost of bikes these days, think of it as cheap insurance. Prevention is easy. An application of Frame Saver® will add years to a frame's life and peace of mind to its owner. May you both ride happily into the next millennium and beyond.*

## NINER ECCENTRIC BOTTOM BRACKET

YOUR NINER EBB IS VERY SPECIFIC TO NINER FRAMES. IT IS THE LIGHTEST EBB ON THE MARKET, AND OFFERS THE MOST SWING OF ANY EBB, MEANING THAT YOU CAN TAKE UP CHAIN SLACK NO MATTER WHAT YOUR GEARING CONSISTS OF, WITHOUT THE NEED FOR HALF LINKS. IT IS A "SET SCREW" STYLE EBB, SO PLEASE FOLLOW THE DIRECTIONS BELOW TO INSURE PROPER INSTALLATION:

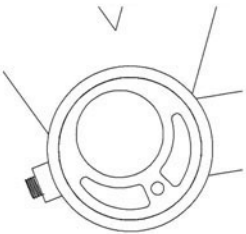


1. TAKE THE EBB OUT OF THE EBB SHELL.
2. PLACE A THIN LAYER OF GREASE ALL THE WAY AROUND THE EBB SHELL IN THE FRAME ON BOTH SIDES WHERE THE EBB WILL CONTACT THE FRAME. NINER RECOMMENDS LITHIUM GREASE OR OTHER WATERPROOF GREASE.
3. REMOVE EBB SET SCREWS AND COAT WITH ANTI-SEIZE COMPOUND. THE SET SCREWS ARE TITANIUM AND REQUIRE ANTI-SEIZE TO INSURE THAT THEY DO NOT BECOME LOCKED INTO THE FRAME.
4. RE-INSTALL EBB INSURING THAT THE R ON THE EBB IS ON THE RIGHT SIDE OF THE BIKE (DRIVE SIDE) AND TIGHTEN DOWN EBB SET SCREWS SNUGLY (DO NOT OVER TIGHTEN).
5. GREASE THE THREADS OF THE EBB AND INSTALL THE BB CUPS TO MANUFACTURES RECOMMENDED TORQUE SPEC.

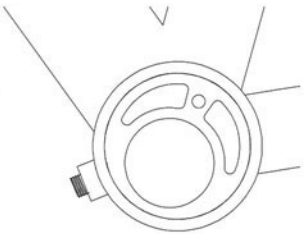
CONTINUED NEXT PAGE

## NINER ECCENTRIC BOTTOM BRACKET (CONTINUED)

6. LOOSEN BOLTS AND ROTATE EBB TO THE REARWARD POSITION AND CUT CHAIN TO THE APPROPRIATE LENGTH USING APPROPRIATE CHAIN TOOL. NINER'S EBB HAS MORE THAN ONE LINKS WORTH OF ADJUSTMENT, SO THE EBB CAN BE RUN IN EITHER A FORWARD OR REARWARD POSITION. ALSO, REMEMBER A NEW CHAIN WILL HAVE SOME "STRETCH" TO IT.
7. MOUNT CHAIN.
8. ROTATE EBB FORWARD UNTIL THE CHAIN HAS PROPER TENSION. DO NOT OVER TENSION CHAIN. YOU CAN RUN THE EBB IN EITHER THE HIGH POSITION OR LOW POSITION DEPENDING ON WHETHER YOU WANT A TALL BB FOR BETTER CRANK ARM CLEARANCE, OR A LOW BB FOR LOWER CENTER OF GRAVITY.
9. TIGHTEN EBB SET SCREWS WITH A 4MM HEX WRENCH.



EBB IN FORWARD, HIGH POSITION



EBB IN FORWARD, LOW POSITION

**WARNING! DO NOT OVERTIGHTEN. TIGHTEN TO NO MORE THAN 55 INCH-LBS (6.2 NEWTON METERS). MAKE SURE YOU ARE USING INCH-LBS VS FOOT-LBS OR YOU WILL DAMAGE THE EBB.**

10. GO OUT & PEDAL DAMN IT!

## SS GEARING INFORMATION

We have designed our single speed bikes to accept tires as large as 2.35" (actual measurement, not "claimed", some manufactures 2.55" tires will fit with plenty of mud clearance). Because of this there is limited room between the chainring and rear chainstay. Because of the rotation of the eccentric bottom bracket, we had to insure clearance no matter where the EBB position landed.

CAUTION! We highly recommend using a 32 tooth front chainring for SS application. A larger chainring could contact the chainstays in certain EBB positions and could cause damage.

Most SS set up requires that the front chainring be in the middle chainring position to maximize chainline. You can use a larger chainring if you mount it in the large chainring position on your cranks, however, this may cause chainline issues with some SS set-ups, specifically thread on style freewheels.

Below is a gear ratio chart to help you find a chainring/cog combination that will mimic your current setup. In the example below if you are switching from a 26" wheel SS bike and using a 32t chainring and 17t rear cog you will use a 32t chainring and 19t tooth rear cog on your Niner to achieve the same gear ratio.

26 Inch Wheels

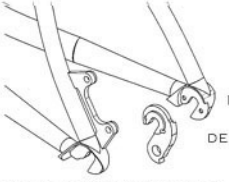
| | 29 | 30 | 32 | 34 | 36 |
|---|---|---|---|---|---|
| 14 | 53.86 | 55.71 | 59.43 | 63.14 | 66.86 |
| 15 | 50.27 | 52.00 | 55.47 | 58.93 | 62.40 |
| 16 | 47.13 | 48.75 | 52.00 | 55.25 | 58.50 |
| 17 | 44.35 | 45.88 | 48.94 | 52.00 | 55.06 |
| 18 | 41.89 | 43.33 | 46.22 | 49.11 | 52.00 |
| 19 | 39.68 | 41.05 | 43.79 | 46.53 | 49.26 |
| 20 | 37.70 | 39.00 | 41.60 | 44.20 | 46.80 |
| 21 | 35.90 | 37.14 | 39.62 | 42.10 | 44.57 |
| 22 | 34.27 | 35.45 | 37.82 | 40.18 | 42.55 |

29 Inch Wheels

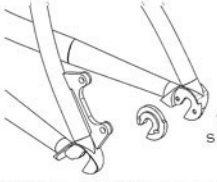
| | 29 | 30 | 32 | 34 | 36 |
|---|---|---|---|---|---|
| 16 | 52.56 | 54.38 | 58.00 | 61.63 | 65.25 |
| 17 | 49.47 | 51.18 | 54.59 | 58.00 | 61.41 |
| 18 | 46.72 | 48.33 | 51.56 | 54.78 | 58.00 |
| 19 | 44.26 | 45.79 | 48.84 | 51.89 | 54.95 |
| 20 | 42.05 | 43.50 | 46.40 | 49.30 | 52.20 |
| 21 | 40.05 | 41.43 | 44.19 | 46.95 | 49.71 |
| 22 | 38.23 | 39.55 | 42.18 | 44.82 | 47.45 |
| 23 | 36.57 | 37.83 | 40.35 | 42.87 | 45.39 |
| 24 | 35.04 | 36.25 | 38.67 | 41.08 | 43.50 |

# S.I.R. 9 SET-UP FOR GEARS

Your S.I.R. 9 frame came shipped to you with the rear SS insert piece installed in the right side drop out. This alloy piece is designed to be used with the frame when running it as a single speed, so there is no ugly derailleur hanger cluttering up the otherwise sleek look of a frame without gears, derailleurs, or cables.

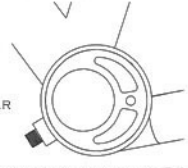


Drop-out with derailleur hanger



Drop-out with single speed insert

When running the S.I.R. 9 as a geared bike, this insert piece will need to be exchanged with the derailleur hanger that came with your S.I.R. 9. Change the hanger out so that you now have a place to bolt your rear derailleur to.



EBB in correct position for use with gear

Set the EBB in the 3:00 position (when looking at the EBB from the drive side, or right, of the frame). This should be the forward most position. This position insures that the front derailleur is aligned with the chainrings as best as possible.

The cable routing for the S.I.R. 9 is under the downtube cable routing. We choose this cable routing because of its limited number of cable stops, for a clean looking frame. It is important when routing the rear derailleur cable that you make sure to pass the cable through the small steel tube welded on the underside of the right chainstay. This will insure that the derailleur cable doesn't rub on the tire.

Once you've followed these few minor steps, just assemble the rest of your drivetrain as you otherwise would, and then go out and RIDE!