

Tngnt
ski bikes

Carve and Drift

Owner's Manual



Ski Bike Owner's Manual

2nd Edition, 2020

IMPORTANT:

This manual contains important safety, performance and service information. Read it before you take the first ride on your new ski bike, and keep it for reference.

If you have any questions or do not understand something, take responsibility for your safety and consult with Tngnt Ski Bikes.

NOTE: This manual is not intended as a comprehensive use, service, repair or maintenance manual. Please see your local bike shop and share this manual with them if you are not comfortable with service, repairs or maintenance.

Tngnt Ski Bikes, Inc.
15198 S Mule Train Dr
Bluffdale, UT 84065
www.tngntskibikes.com
support@tngntskibikes.com



Introduction

Welcome to one of the fastest growing winter sports! You have in your possession one of the finest ski bikes in the world. The following pages will provide you with the information you need to properly use, adjust, maintain and service your new ski bike.

It is essential that you read this owner's manual thoroughly before riding your ski bike.

Please pay special attention to the safety information and cautions located throughout this owner's manual, as they are in place to help you avoid serious injury.

If you encounter any issues with your ski bike that aren't covered in this manual, please contact Tngnt Ski Bikes at

support@tngntskibikes.com

Thank you for riding a Tngnt. You are riding the highest performing, most affordable ski bike in the world.

The slope is your limit.

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General Warning:

Like any snow sport, ski biking involves risk of injury to you and your equipment. By choosing to ride a ski bike, you assume the responsibility for that risk. You need to know and practice the rules of safe ski biking for yourself and those around you, as well as maintenance of your ski bike.

This manual contains many warnings concerning the consequences of failure to maintain or inspect your ski bike and failure to safely ride your ski bike.

- The word WARNING along with the symbol  indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death. In addition, the situation could result in serious damage to the ski bike or the voiding of your warranty.

Many of the warnings say “you may lose control and fall.” Because any fall can result in serious injury or even death, we do not always repeat the warning of serious injury or death.

Because it is impossible to anticipate every situation or condition which can occur while riding, this manual makes no representation about the safe use of a ski bike under all conditions. There are risks associated with the use of any snow sport equipment which cannot be predicted or avoided, and which are the sole responsibility of the rider.

Note to Parents

As a parent or guardian, you are responsible for the activities and safety of your minor child. Make sure that the ski bike is properly fitted to the child; that it is in good repair and safe operating condition; that you and your child have learned and understand the safe operation of the ski bike; and that you and your child have learned, understand and obey the rules and regulations of your mountain. You should read this manual, as well as review its warnings and the ski bike's functions and operating procedures with your child, before letting your child ride the ski bike.



WARNING: Make sure that your child always wears a helmet when riding. Failure to follow this warning could result in serious injury or death.

1. Before Your First Ride

We strongly urge you to read this Manual in its entirety before your first ride. At the very least, read and make sure that you understand each point in this section, and refer to the cited sections on any issue which you don't completely understand. If you don't understand something, contact Tngnt Ski Bikes or ask a bicycle dealer for help.

Safety

1. Always wear an approved helmet when riding your bike, and follow the helmet manufacturer's instructions for fit, use and care.
2. Do you have all the other required and recommended safety equipment? See Section 3. It's your responsibility to familiarize yourself with the laws of the areas where you ride, and to comply with all applicable laws.
4. Is your ski bike properly assembled? See section 4.
5. You are responsible for your own safety. Ride in control and within your limits. Be aware of those around you.
6. Always use your leash. It will protect others in case you become separated from your ski bike.

Mechanical Safety

Routinely check the condition of your ski bike before every ride.

1. Fasteners—screws and nuts: The correct torque is important to the function and safety of your ski bike. Refer to the torque specifications in Section 4. Correctly tightening fasteners requires a calibrated torque wrench. If you don't have a torque wrench or don't know how to operate a torque wrench, take your ski bike to a qualified bike mechanic, give them the specifications from this manual, and let them torque the fasteners on your ski bike. If you need to make an adjustment at home or in the field, please exercise care.



WARNING: Correct torque on the fasteners on your ski bike is important. Too little torque, and the fastener may separate. Too much torque and the fastener can fail. Incorrect torque can result in component failures, which can cause you to lose control and fall.

2. Skis: Properly tuned skis are important to the function and safety of your ski bike. Skis need to be regularly tuned by a professional. Skis should also be tuned to the conditions you encounter on the mountain. If you don't know how to tune your skis, take them to a qualified ski technician.



WARNING: Correctly tuning your skis is important. Improper tuning can cause your skis to perform incorrectly. Unmaintained or incorrectly tuned skis can cause you to lose control and fall.

3. Ski retention system: make sure the front and rear skis are properly secured. See section 4.
4. Seat post: Make sure that your seat post is properly adjusted and in the locked position. See section 4.

Mechanical Safety Continued

5. Stem and Handlebars: Make sure that the stem and handlebars are properly aligned and tight. See section 4.



WARNING: Correctly aligning and tightening your stem and handlebars is important. Improper alignment and fastener torque can cause you to lose control and fall.

6. Rear triangle pivot joint: Make sure that the fastener that is used to connect the rear triangle to the front triangle is properly torqued. See section 4.

2. First Ride

If you are new to ski biking, you will need to spend significant time familiarizing yourself with the operation of your ski bike. Start on a wide, gradual slope. Practice carving, recognizing that most of the control of the ski bike is in the rear ski. Stay on the wide, gradual slope until you can ski bike in complete control. Lessons or ability check-outs are required at some ski areas. If you are new to ski biking, take a lesson if it is available.

If you are an experienced rider, always take the time to become familiar with the unique aspects of your Tngnt ski bike. Your Tngnt ski bike has the best ski retention in the industry. Take the time to get accustomed to the carving and turning abilities of the ski bike. Always ride within your limits. Don't jump, ride steep slopes or in icy conditions.

If you have any questions, or if you feel anything about the ski bike is not as it should be, contact Tngnt Ski Bikes before you ride again.

3. Safety



WARNING: The ski area which you ride may require specific safety devices. It is your responsibility to familiarize yourself with the laws of the area where you ride and to comply with all applicable laws, including properly equipping yourself and your ski bike as the law requires. Many ski areas require that you ride with a leash. If a leash is required, please ride with it. If a leash is not required, you should still ride with it.

1. Always wear a helmet which meets industry standards for bicycles as a minimum. In typical winter conditions, goggles and a full face helmet will provide the best protection. Many serious injuries can be avoided if you wear an appropriate helmet that fits properly and is properly fastened.



WARNING: Failure to wear a helmet when riding may result in serious injury or death.

2. Always do the Mechanical Safety Check (Section 1) before you get on your bike.
3. Don't jump your ski bike. Jumping a ski bike can be fun, but it can put unexpected stress on the frame and components. Riders who insist on jumping their bikes risk serious damage, to their bicycles as well as to themselves. Think carefully about your skills before deciding to take the risks that come with jumping and extreme riding.
4. Ride at speed appropriate for the conditions. Higher speed means higher risk to yourself and those around you.



WARNING: Ski bike frames and components have limitations with regard to strength and integrity, and this type of riding can exceed those limitations.



WARNING: Although many catalogs, advertisements and articles depict extreme sports, this activity is extremely dangerous, increases your risk of injury or death, and increases the severity of any injury. Remember that the action depicted is being performed by professionals with many years of training and experience. Know your limits and always wear a helmet and other appropriate safety gear. Even with state-of-the-art protective safety gear, you could be seriously injured or killed when jumping, stunt riding, riding downhill at speed or in competition.

5. Obey all rules of the ski area you are riding at.
6. You are sharing the mountain with other snow sport enthusiasts. Be respectful of skiers, snowboarders and other users of the ski area.
7. Be aware of your surroundings. Speeds vary greatly on a ski slope from one person to the next. Down-slope users always have the right-of-way. Even if you are down-slope, it may be a good idea to glance up-slope before making sharp turns.
8. Ski bike predictably. Don't make sharp turns or suddenly veer off of your predictable path. Communicate with those around you when you change direction.
9. Never ride with headphones. They distract you from concentrating on what's going on around you and prevent others from being able to communicate effectively with you.
10. Never ride your ski bike while under the influence of alcohol or drugs.
11. Wear safety gear appropriate to the kind of riding you plan to do.

12. Be aware of the conditions of the mountain. If the snow is unpredictable (icy or slushy) you are at increased risk of an accident. When visibility is low, you are at increased risk of an accident.
13. Don't ride in remote areas or outside of ski area boundaries. Even when riding with others, make sure that someone knows where you are going and when you expect to be back.
14. There are many components and accessories available to enhance the performance and appearance of your ski bike. However, if you change components, you do so at your own risk. The manufacturer may not have tested that component or accessory for compatibility. Contact Tngnt ski bikes if you plan to change components on your ski bike to ensure compatibility.



WARNING: Failure to confirm compatibility, properly install, operate and maintain any component or accessory can result in serious injury or death.

15. Ensure that all components are installed, torqued, and maintained according to section 4.

4. Technical

It's important to your safety and to the performance of your ski bike that your ski bike is assembled correctly and that you understand how the components of your ski bike work. If there is something you don't understand, take this manual to a bike shop and ask them for help or contact Tngnt Ski Bikes.

Torques

It cannot be over emphasized how important it is that the fasteners on your ski bike are properly torqued. The fasteners on your ski bike should fall within the ranges specified below. If you have to go outside the range, something may be wrong. Contact Tngnt Ski Bikes before your next ride.

The table below has five columns. Column one contains an ID number that is referenced in the graphics later in this section. Column two describes the fastener. Column 3 shows the required torque range in inch pounds (in-lbs). Column 4 shows the required torque range in Newton meters (N-m). Column 5 shows where threadlocker is recommended. Tngnt Ski Bikes recommends Loctite 242 for fasteners that will not be removed frequently. Tngnt Ski Bikes recommends Vibra-tite VC-3 for fasteners that are removed frequently.

ID	Fastener	in-lbs	N-m	Loctite 242 or Vibra-tite
1	Fork Star Nut	Finger tight + 1/4 turn or until no play in headset		
2	Stem to Fork	45-70	5-8	X
3	Stem to Handlebar	45-70	5-8	X
4	Lock-on Grips	25-35	3-4	
5	Front Clamp	80-90	9-10	X
6	Front & Rear Axle	150-200	17-23	X
7	Pivot Joint (Carve Only)	130-150	15-17	X
8	Bottom Bracket	300-430	34-49	
9	Pedals	290-310	33-35	
10	Shock Bolts (Carve Only)	150-170	17-19	X
11	Ski Bracket	65-75	7-8	X
12	Saddle	195-210	22-24	

You are responsible for properly torqueing your ski bike fasteners.

Your Tngnt Ski Bike may come partially assembled. Regardless of what parts are together when you receive the ski bike, all fasteners should be checked for proper torque and installation. We recommend that initial assembly be performed by your local bike shop. Take this manual to a bike shop and ask them to assemble your ski bike. Except for parts unique to ski bikes, such as the retention system or skis, all components on your ski bike are industry standard bicycle components.



WARNING: Correct torque on the fasteners on your ski bike is important. Too little torque, and the fastener may separate. Too much torque and the fastener can fail. Incorrect torque can result in component failures, which can cause you to lose control and fall.

Fasteners

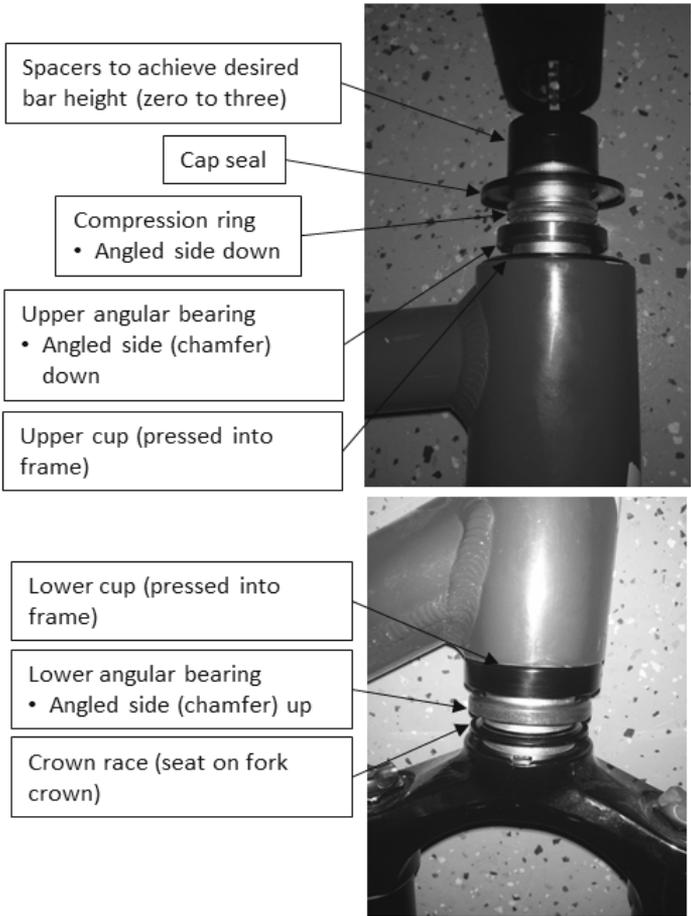
Your Tngnt Ski Bike ships with all Stainless Steel fasteners (screws, washers, and nuts). Stainless steel fasteners are both strong and resist corrosion. However, they are subject to a physical condition called galling. Tngnt Ski Bikes recommends using Loctite 242 or Vibra-tite for all fasteners previously noted. In addition to serving as a threadlocker, Loctite 242 or Vibra-tite also serve as a lubricant for the fasteners. If you choose not to use Loctite 242 or Vibra-tite, you must lubricate screw threads with grease in order to avoid thread galling.

Ski Bike Assembly

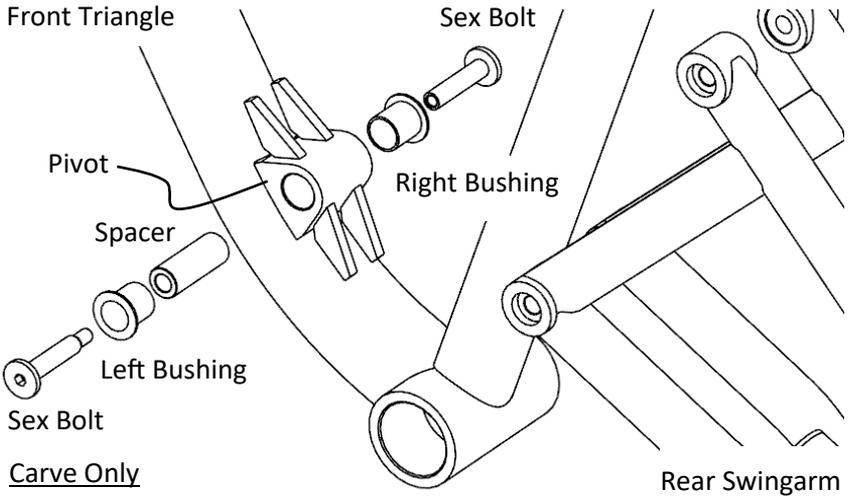
All of the components on the ski bike, with the exception of the pedal assembly and the ski retention system are industry standard bicycle components. The assembly of these components will now be described. See the Tngnt Ski Bikes YouTube channel for video instructions and required clarification.

Note: assembly is much easier with a standard bike mechanic's stand. Clamp lightly around the tubes to avoid damaging them.

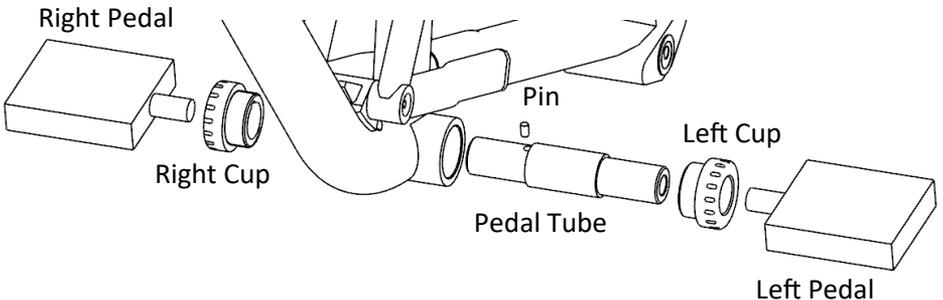
1. Insert the fork steerer tube through the head tube, with the headset components in the proper order.



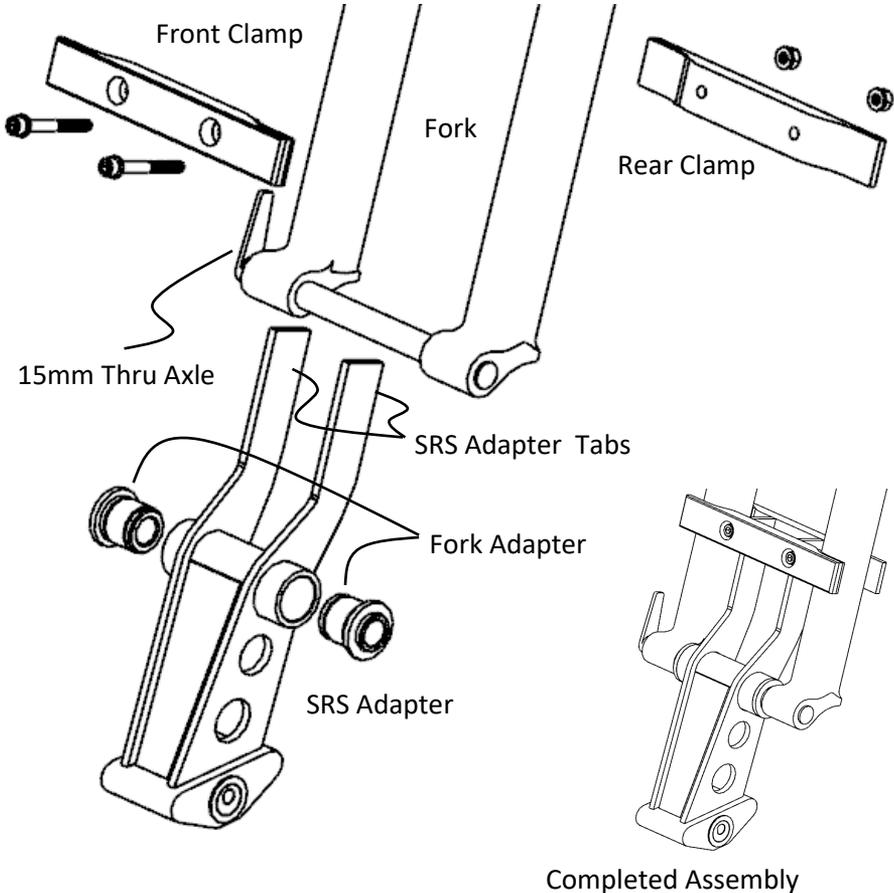
2. Slide the desired number of 10mm spacers (2 recommended) over the steerer tube.
3. Apply Loctite 242 or Vibra-tite to all stem fasteners.
4. Slide the stem onto the steerer tube over the spacers.
5. Place the remaining spacer(s) on top of the stem. Place the headset cap over the top spacer, then thread it into the star nut inside the steerer. Tighten the star nut until it is just snug (finger tight), then give it approximately 1/4 additional turn. The headset should be snug (Torque ID #1) with no noticeable play in the headset.
6. Install the handlebars into the stem. Snug the handlebars to the stem and the stem to the steerer. After final alignment (likely after skis are installed), torque the stem onto the steerer tube at Torque ID #2 and the stem onto the handlebars at Torque ID #3.
7. Install the lock-on grips onto the handlebars. Torque to Torque ID #4.
8. Assemble the saddle to the seatpost at Torque ID #12.
9. Assemble the seatpost into the frame and tighten the seat post clamp.
10. (Carve Only, if necessary) Assemble the swingarm to the front triangle. The bushings and spacer should already be installed in your ski bike. If they are not, take your ski bike to a bike mechanic for installation. Apply Loctite 242 or Vibra-tite to the sex bolt. Line up the swingarm holes with the spacer on the pivot and insert the sex bolt. Torque to Torque ID #7.



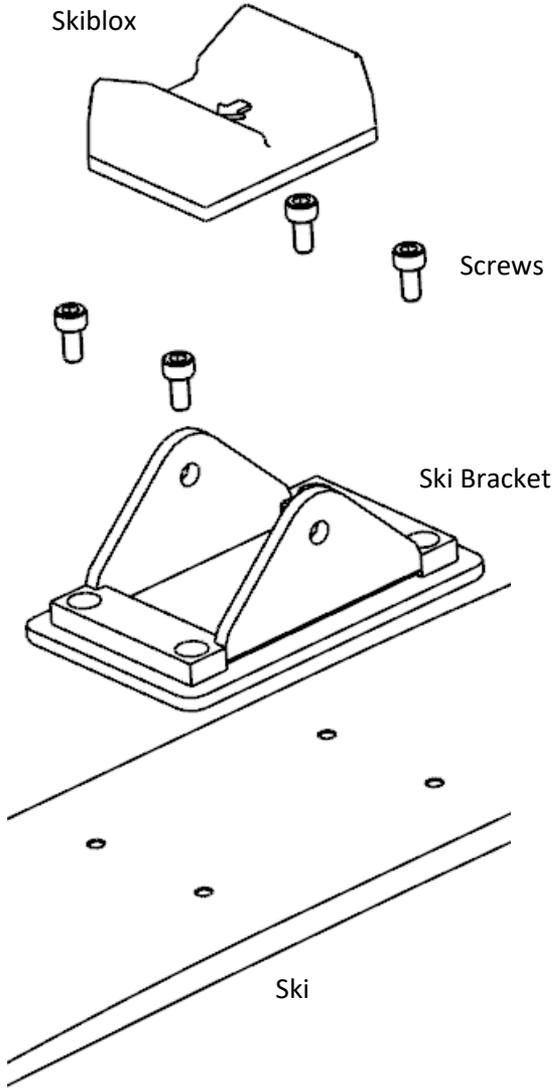
11. (Carve Only, if necessary) If the rear shock is not already assembled, assemble it now using the supplied sex bolts. Apply Loctite 242 or Vibra-tite to screws prior to installation.
12. Assemble the pedal tube. Place the pin in the hole on the pedal tube as shown below. If the pin isn't already bonded in, it is recommended that you apply a small amount of adhesive (super glue or Vibra-tite) and bond the pin in the hole. Thread the right cup into the bottom bracket and tighten to Torque ID #8. Note that the right cup uses a left hand thread. Slide the pedal tube through from the left side, and line up the pin with the slot in the right cup. Thread in the left cup and tighten to Torque ID #8. Install right and left pedals to Torque ID #9.



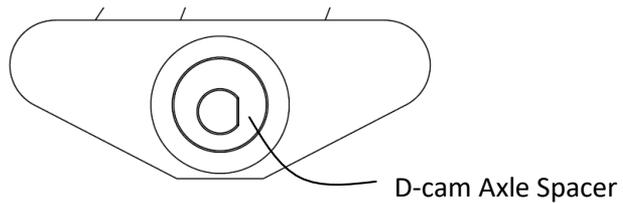
13. Assemble the Front SRS Adapter to the fork. First, remove the 15mm thru axle from the fork. Slide the Fork Adapters into the SRS Adapter. Line up the Fork Adapters with the fork, and install the 15mm thru axle. The thru axle does not need to be tightened yet. Line up the top of the front and rear clamps (clamps are identical) with the top of the SRS Adapter tabs. Apply Loctite 242 or Vibra-tite to M6 screws. Install 2 each M6 screws and washers through the front clamp, around the SRS Adapter tabs, and out the rear clamp. Install 2 each M6 washers and locknuts. Align and tighten to Torque ID #5. Now fully tighten the 15mm thru axle.



14. Assemble the ski bracket to the ski. First, align the holes in the ski bracket with the holes in the ski. Apply Loctite 242 to the M6 screws, then install the screws into the 4 holes in the bracket and into the ski. Torque to Torque ID #11. Place the Skiblox into the ski bracket with the arrow pointing toward the front of the ski. Repeat for the second ski.

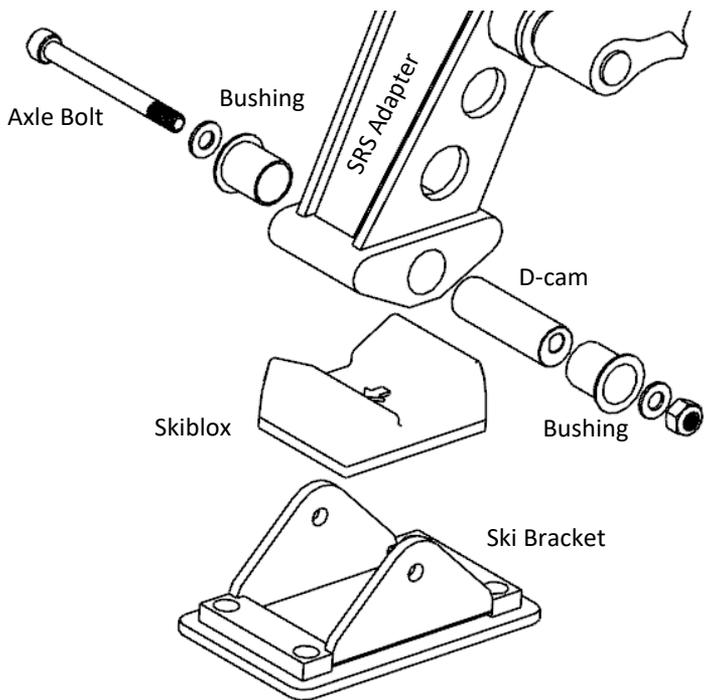


15. Assemble the ski assembly to the ski bike. Note that this joint is the primary joint you will use to remove the skis from the bike if required for any reason. The bushings and D-cam axle spacer should already be installed in your ski bike. If they are not installed, take you ski bike to a bike mechanic for bushing installation. Ensure that the D-cam in the axle spacer is as shown in the figure below. The flat side of the hole may be on either side, but the hole should be in the position toward the bottom of the SRS. This is the “loose” orientation.

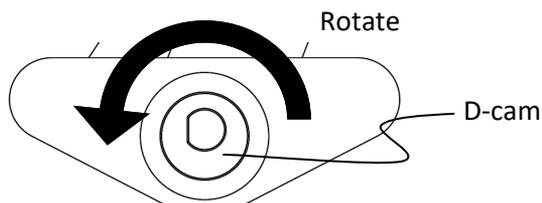


D-cam with hole offset toward bottom
"Loose" orientation

With the D-cam in this orientation, line up the holes in the ski bracket with the D-cam hole. Place an M8 washer on the Axle Bolt, and insert the Axle Bolt ensuring that the flat on the bolt aligns with the flat in the D-cam. Apply Loctite 242 or Vibra-tite to the screw threads.



15. (Continued). Place the M8 washer and locknut on the Axle Bolt and tighten the nut (note that you must rotate the nut, NOT the bolt) until it just touches the outside of the ski bracket. Now rotate the Axle Bolt (which also rotates the D-cam) into the “tight” orientation using the socket head on the Axle Bolt so that the D-cam is toward the top as shown in the figure. Finally, torque the nut on the screw to Torque ID # 6. Repeat for the second ski.



D-cam with hole offset toward the top
 “Tight” orientation

16. Make final alignments and retorquing all fasteners as necessary.

5. Service



WARNING: Many service and repair tasks require special knowledge and tools. Do not begin any adjustments or service on your ski bike until you are completely comfortable. We recommend that significant mechanical repairs should be carried out by a qualified bicycle mechanic. Improper adjustment or service may result in damage to the bicycle or in an accident which can cause serious injury or death.

Service Intervals

After everyday on the slopes

- Wipe off all moisture on the bike, suspension and skis

Before each day on the slopes

- Mechanical Safety Check (Section 1)
- Sharpen and wax skis for optimal performance
- Check to make sure all parts and accessories are still secure, and tighten (torque) any which are not.
- Check the frame, particularly in the area around all tube joints; the handlebars; the stem; and the seatpost for any deep scratches, cracks or discoloration. These are signs of stress-caused fatigue and indicate that a part is at the end of its useful life and needs to be replaced.

Every 100 hours of riding

- Replace Skiblox

If Your Ski Bike Sustains an Impact

- First, check yourself for injuries, and take care of them as best you can. Seek medical help if necessary.
- Next, check your ski bike for damage. After any crash, take your bike to a bike shop for a thorough check.



WARNING: A crash or other impact can put extraordinary stress on bicycle components, causing them to fatigue prematurely. Components suffering from stress fatigue can fail suddenly and catastrophically, causing loss of control, serious injury or death.

6. Warranty

Tngnt Ski Bikes, Inc. provides each original retail purchaser of a new Tngnt ski bike a limited warranty against defects in materials and workmanship as follows:

Three (3) Years

- Frames for three (3) years from the date of original purchase (subject to exclusions under the one (1) year period below).

One Year

- Suspension pivot joints, bushings, rear shock, front suspension forks, and fasteners for one (1) year from the date of the original purchase.
- Paint/finish, components attached to the bicycle/frameset such as saddle, seat post, handlebar and stem for one (1) year from the date of the original purchase.

The Limited Warranty is conditioned upon the ski bike being operated under normal conditions and use, and properly maintained. To exercise the rights under this Limited Warranty, contact Tngnt Ski Bikes at support@tngntskibikes.com

Proof of purchase which identifies the ski bike by serial number with the requesting person's name is required. Should the ski bike, frame, or any part be determined by Tngnt to be covered by this Limited Warranty, it will be repaired or replaced, at Tngnt's sole option. The original owner shall pay all labor charges connected with the repair or replacement of all parts. Under no circumstances does this Limited Warranty include the cost of travel or shipment to and from Tngnt Ski Bikes. Such costs, if any, shall be borne by the original owner. Every Tngnt Ski Bike and frameset has a useful product life cycle. Nonstandard use, including without limitation, use in competitive events, jumping, aggressive riding, riding with heavy loads, can dramatically shorten the useful product life cycle of a ski bike. In addition, exposure of the ski bike to moisture or salt is likely to cause corrosion of the product and will shorten the product life. You are advised to dry and clean your bike regularly to avoid such corrosion.

