

HUBS

Maintenance: For prolonged life we advise that hubs should be submitted to an experienced bike mechanic for an overhaul regularly. NS hubs require maintenance about once a year. This depends on how extreme the conditions of usage are (heavy rain, mud, etc) and how frequently they are ridden.

Important! before every use check the function of your wheels, check if the mounting bolts are secure, check that the freewheel engages correctly. If there is any mal-function of the hubs, they should not be used under any condition. In case of any doubt, consult an experienced bike mechanic.

Wheel building: Wheels should be built by experienced bike mechanics only. For spoke information, please refer to a spoke calculator and enter the hub dimensions that can be found on www.nsbikes.com

Installation: (for all hubs): Once your wheel is built up and complete, place the hubs into the dropouts of the frame, align them correctly and tighten the track nuts. Tightening torque should be as follows: Rotary Cassette, Rotary Single, Rotary Single Pro: up to 36Nm, Rotary Front 10: 16Nm. We strongly recommend using a torque wrench and applying the appropriate torque for each hub! Axle bolts should be tightened alternately! Do not over-tighten bolt on one side without counter tightening on the other! Check tightness of bolts before every ride! Please note:

PEDALS

The Aerial Pro & Aerial (sealed) pedals run on sealed cartridge bearings & bushings. The Aerial came also in loose ball version. To prolong pedal life periodically clean and grease internals.

1. Remove pedals from crank arms (note: left pedal = left thread).
2. Clamp end of axle in a vice on the spanner flats.
3. Remove external end plug with hex wrench.
4. Undo the lock nut with socket (anti clockwise).
5. Now the pedal body can be removed from axle.
6. Clean internals and axle with soft rag.
7. Re-grease internals.
8. Re-assemble pedals in reverse order.

The Aerial loose ball pedals should be checked periodically. If the bearings become loose then the pedals need to be re-adjusted as soon as possible. Otherwise pedal bearings can be damaged. Riding with loose bearings is dangerous, and might cause the pedal axle to snap.

STEMS

Stem tube information

1. All Quark stems are only compatible with 1.125" (28.6mm) fork steer tubes. Quark Small will only fit 25.4mm handle bars (or 22.2mm h-bar with shim) and Quark big was built to work with 31.8mm handle bars only. To ensure adequate clamping surface every stem needs to have a mandatory length of exposed steer tube above the head set. The Quark Small stem requires between 35 to 37mm and the Quark big stem requires between 38 to 40mm of exposed steer tube.

Installation

1. Make sure that the steer tube is free from any sharp burrs. If you find any - simply remove them with a file or sandpaper. Next, install the headset components and spacers (if needed) onto the steer tube. The steer tube must be dry and clean (NO GREASE).
2. Install the stem on the steer tube by sliding it down until it touches the headset spacers.
3. Install "top cap" of the headset and "compression bolt" on top of the stem. Next adjust the pre-load referring to the manufactures specifications. Remove all the "play" but do not over tighten.
4. Adjust the stems position with front tire, and then tighten both steer tube clamp bolts using 14Nm torque. Remember to tighten both bolts alternately.
5. Next place your bar into the clamp after removing all of the bar clamp bolts. Install handle bar clamp and bar clamp bolts using 12 Nm torque. Also try to tight the bolts simultaneously applying the same amount of torque in a cross pattern until you achieve full torque setting. The gap between the stem body and the handlebar clamp between the top and bottom should be even.

Maintenance

1. Hardware should be regularly checked for tightness. Try not to over-tighten while installing.
2. All parts of the stem should be regularly checked for damage or cracks. If you find any, contact an experienced bike mechanic immediately.

BARs

Installation: We strongly recommend that the whole installation process and further service is conducted by a professional bike shop. You can seriously compromise the life span and strength of the bike components by improper adjustment and assembly. However if you decide to do it yourself please follow these installation instructions carefully:

1. First check the bar for any nicks and gauges and other visible signs of damage. Note that flaws like that can happen during shipping and handling and may lead to failure and shorter life span of the handlebar.
2. Make sure that there are no sharp edges and burrs in the stem's clamp area. File or sand to remove if necessary.
3. Place the handlebar into the clamp after removing all the clamp bolts. Next reinstall the clamp and clamp bolts.
4. Note for District: these bars have 22.2mm bar centres, and you will need to use a shim (adapter) that is supplied with the bars if you want them to fit into an MTB stem (25.4mm). Without the shim, these bars will only work with BMX stems (22.2mm).
5. Line-up the centre marks on your bar and handlebar stem clamp. Adjust them to achieve the desired rotation. Next tighten the stem clamp bolts using manufacturer's recommended torque values.
6. Slide the brake and shift levers on to bar. While installing try not to over-tighten your lever clamps and make sure you use torque values recommended by lever manufacturer.
7. To complete installation, install your grips. For your safety please always use bar-end plugs.

FORKS

The steer tube may need to be cut to length to fit your frame head tube, headset and stem. You can however still use the headset spacers if you are not decided to cut the steer tube flush with the stem. The steer tube length is: RNS fork-185mm, Fundamental-190mm, Analog - 205mm. If you are not familiar with cutting the steer tube or do not have the proper tools pls. contact a qualified bicycle mechanic. The steer tube should be cut so that once the fork is mounted on the frame with the headset spacers and stem, the steer tube should be about 2mm below the top of the stem steer clamp. If the steer tube is too long and touches the top cup - you won't be able to tighten the headset system properly. If it's too short, the stem will not hold the steer tube properly and this can be very dangerous. Remember to remove any sharp edges after cutting the steer tube.

Install the star nut or top cup compressing device inside the steer tube. The star nut / top cup is used only to pre-load the headset. Lock the stem on the steer tube. After the final assembly check headset for proper adjustment, the fork should rotate smoothly but without any play. Readjust if necessary.

NS Bikes rigid forks came with small safety washers mounted on the outside surface of the dropouts. After putting these washers on the hub axle / under hub bolts tighten the hub nuts / hub bolts. The hub will be immobilized then in well aligned position. These small washers act also as safety system when you hub bolts / nuts become loose accidentally.

Safety washers outside diameter is 14mm. Your hub nuts or bolts should be at least 18mm outside diameter to ensure that the wheel is fully immobilised. In the case your bolt head / nuts are smaller - please put a bigger washer between dropouts and axle bolt/nut.

Periodically inspect the fork for any signs of damage. If you suspect it may be broken, bent, cracked do not use it. Inspect if the steer tube and fork blades are straight and dropouts for cracks or damage.

DO NOT RIDE ON THE DAMAGED FORKS - IT MAY CAUSE SERIOUS INJURY OR DEATH.

RIMS

NS Fundamental & Trailmaster rims are disk brake only compatible. They are not compatible with V-brakes or U-brakes

Wheelbuilding: Trailmaster rims have asymmetrical offset drilling for optimized spoke setup and stronger structure (design for standard lacing- no cross lacing). Spokes from the left side of the rim should always go to the left hub flange and never to the right one. Spokes from the right side of the rim should always face to the right hub flange and never to the left one.

GRIPS

Installation: NS grips came with bar-end plug. Please remember to install them after installing the grips. Bar-end plugs are designed to cover the sharp edge of the handlebar for safety reasons!