

# Wheels

## Technical Manual



## Contents

1	Safety and instructions for use.....	3
1.1	General safety tips for wheels .....	3
2	Warranty and crash replacement.....	3
2.1	Warranty summary.....	3
2.2	Crash Replacement summary.....	4
3	Technical Information .....	4
3.1	Spoke Tension.....	4
3.2	Tolerances.....	4
3.3	Tightening Torques .....	4
4	Installation .....	5
4.1	Tyres .....	5
4.2	Freewheel.....	6
4.3	Cassette .....	6
4.4	Brake disc.....	6
4.5	Wheel .....	6
5	Maintenance.....	7
6	Additional Information.....	8
6.1	Wheel Categories .....	8
6.2	Rim- / Tyre-width combinations and Tyre-pressure recommendations .....	8

# 1 Safety and instructions for use



## DANGER

- Before every ride you should make sure that all the components are properly tightened.

Before and after every ride, check to see whether any of the components are damaged and that everything is still intact. If problems arise, the components should no longer be used. If you are in doubt, please see your local bicycle dealer.

- Follow the manufacturer's instructions for installing the components on the bicycle.
- The components need to be compatible with all parts of the bicycle.
- The components are only to be used according to their stated purpose.
- Only use original replacement parts. -Do not change or modify the components.
- We recommend having any components maintained by a specialist.
- Do not clean the components with high-pressure power washers.
- If there is any damage or indication of damages, then the components cannot be used. If there is any doubt, please go to your local dealer.

## 1.1 General safety tips for wheels

- Check that the wheel is properly secured in the frame. Lift the bike slightly and allow it to bounce on the ground to determine if any components are loose.
- Check the wheel for damage before and after each ride.
- Check that all the spokes are in good condition and not loose.
- Regularly check the wheel for spoke tension, true running and wear.
- Check that the tyres are inflated with the correct air pressure and are completely undamaged.
- Do not use metal tyre levers. These can damage the wheel, tyre, inner tube and the surface of the rim.
- Only use only valves of a suitable diameter. Modification of the valve hole is not permitted.
- The maximum pressure of the wheel or tyre must not be exceeded.
- Only use tyres, wheel rims and inner tubes that fit the wheel or match its dimensions.
- Check that the tyre is fitted properly to the rim.

# 2 Warranty and crash replacement

In addition to high-quality products, we also offer first class service. That is why MG-Components GmbH & Co. KG provides not only the legally required warranty on all NEWMEN products, but also an additional three-year warranty on all material and manufacturing defects.

## 2.1 Warranty summary

- All components must be installed and used according to the assembly instructions.
- The respective manufacturer's warranty applies to all third-party parts.
- Improper use, not following the instructions for use, incorrect repair, assembly or maintenance, as well as damages caused by incorrect wheel assembly (spoke pattern, spoke cross, spoke tension, incorrect torque, incorrect lubrication, etc.) are not covered under the warranty.

## 2.2 Crash Replacement summary

- The offer is valid for three years from the date of purchase.
- It can also be transferred to the next owner.
- Damages must affect functionality (visual damages are excluded).
- Replacement is made with the same model. However, MG-Components GmbH & Co. KG reserves the right to replace the damaged article with an alternative product of the same value.
- You have no legal claim to the damaged product, which will become the property of MG-Components GmbH & Co. KG.
- MG-Components GmbH & Co. KG will not pay for costs related to assembly, shipping or customs.
- Crash Replacement is not a substitute for any warranty stipulations that apply in the individual countries.
- Components such as tyres, cassettes, brake discs, brake callipers, etc. must be removed.
- The following is a list of reasons why the Warranty and the Crash Replacement Service guarantee benefits may not apply.
  - Damages caused by incorrect installation of the components.
  - Damages caused by incorrect repairs to the components.
  - Improper use, e.g. a cross-country wheelset used for downhill riding
  - Modification to the components
  - Maintenance or repairs that were either incorrectly done or not carried out
  - Normal wear and tear from use of the components
  - Transport and delivery damages
  - Improper use and/or mishandling
  - Damages from an accident

## 3 Technical Information

For further technical data like spoke lengths, ERD dimensions, hub information and spare parts please check the downloads on our website.

<https://www.newmen-components.de/Downloads>

### 3.1 Spoke Tension

- Average spoke tension of the higher tensioned wheel side 1100N

Spoke tension for VONOA wheels is also at 1100N, but special tools and knowhow are required.

### 3.2 Tolerances

- Side-deviation 0.3 mm
- Height-deviation 0.3 mm
- Centricity 0.3 mm

### 3.3 Tightening Torques

- Brake disc 6-Bolt bolts 6 Nm
- Brake disc Centerlock lockring 40 Nm
- Cassette lockring 40 Nm

## 4 Installation

### 4.1 Tyres

Generally, we recommend the use of soapy water or specially designed assembly fluids when fitting tyres.

- **Traditional installation with inner tube and tyre:**

1. Glue or attach a suitable rim tape to the rim. Observe the manufacturer 's instructions.
2. Insert one side of the clincher tyre into the rim. Position the inner tube between the rim and tyre and slowly insert the valve into the valve hole on the rim. In order to be able to mount the inner tube correctly on the rim, it must be slightly inflated beforehand. Next, the inner tube and tyre must be installed on the rim by hand, whereby it is important to ensure that the inner tube is properly positioned in the tyre and that the tyre is properly seated on the rim. Then pull the second tyre carcass onto the rim (always begin opposite the valve hole).

During installation please also refer to the instructions provided by the manufacturers of the inner tube, wheel rim and tyre.

3. Inflate the tyre until it fits correctly and evenly on the rim. Pay attention to the maximum permissible pressure of both the rim and tyre — the lower of the two values should always be used.
4. Check that the tyre is seated correctly on the rim. The tyre must rest evenly on every part of the rim.
5. Reduce the tyre pressure to the desired pressure.

- **Tubeless installation:**

During installation please also refer to the instructions provided by the manufacturers of the inner tube, wheel rim, valve and tyre.

1. Glue or attach a tubeless rim tape to the rim. The tubeless rim tape must cover the entire rim base and should be glued with a sufficient overlap.
2. Install a suitable tubeless valve. Observe the manufacturer's instructions. Pierce the valve hole with a pointed object (e.g. a knit-ting needle). Insert the tubeless valve into the valve hole, ensuring that the valve opening is correctly located on the inside. Fasten the tubeless valve with a sleeve nut. Do not use a tool for this.
3. Now mount the first tyre side on the rim.
4. Before pulling the second tyre side onto the rim, pour the sealing fluid into the tyre (opposite the valve). Pull the second tyre side completely onto the rim.
5. Inflate the tyre until it fits correctly and evenly on the rim. Pay attention to the maximum permissible pressure of both the rim and tyre — the lower of the two values should always be used. When installing the wheel for the first time, ideally use a compressor.
6. Now shake and rotate the assembled wheel in all directions.
7. Some air and sealing fluid may escape initially — this is quite normal. If necessary, repeat steps 5 and 6.
8. Check that the tyre is seated correctly on the rim. The tyre must rest evenly on every part of the rim.
9. Reduce the tyre pressure to the desired pressure.

## 4.2 Freewheel

NEWMEN freewheel bodies which are made of aluminium have the possibility that individual sprockets create notches / nicks in the freewheel body. These notches on the cassette are not damages. The burrs on the notches can be removed with a file.

## 4.3 Cassette

Install the cassette according to the manufacturer 's instructions.

## 4.4 Brake disc

Install the disc according to the manufacturer 's instructions.

- **6-hole brake disc:**
  - Always tighten the bolts in a cross pattern
  - Tighten the disc to 6Nm unless otherwise specified
- **Center-Lock brake disc:**
  - Tighten the Center-Lock nut according to the manufacturer 's instructions.
  - Be sure the disc doesn't have any axial play after installation. If this is the case, loosen the Center Lock nut and repeat the tightening process. If there is still axial play, contact your dealer. You should by no means ride if the brake discs are loose.

## 4.5 Wheel

Assemble the wheel taking the specified torque into account.

## 5 Maintenance

The following maintenance intervals are to be followed.

Action	Interval
check the wheel mounting	Before and after every ride
Hub service for normal use	Yearly
Hub service for extreme use (frequent rides in rain, mud, snow, dirt)	As needed
Service if something is wrong (e.g. bearing play, damaged spokes or freewheel body issues)	Immediately
Check the wheel for damage or irregularities	Before and after every ride
Check the spoke tension, wear and true running of the wheel (spoke tension reference see technical information)	After 20 hours of use
Check tightening torque -Center Lock Adapter 40 Nm -Screws for brake disc 6 Nm -Lock ring for the cassette min. 40Nm	After 20 hours of use
Clean the wheel with a soft towel and suitable cleaning fluid (no aggressive fluids or pressure washers)	After every ride

Figure 2: Maintenance Intervals

## 6 Additional Information

### 6.1 Wheel Categories

We divided our wheels in five different categories according to their intended use. For detailed information please check the table on our website.

<https://www.newmen-components.de/Downloads>

### 6.2 Rim- / Tyre-width combinations and Tyre-pressure recommendations

For Rim- / Tyre width combinations and recommended tyre-pressures please check the table on our website.

<https://www.newmen-components.de/Downloads>