WH-R500

Wheel

General Safety Information

⚠ WARNING

- Before use, check the wheels to make sure that there are no bent or loose spokes, dents, scratches or cracks on the rim surface. Do not use the wheel if any of these problems are found.
- Do not use in combination with bottom link-type suspension forks. With these types of forks, the clearance between the hub axle and the brake shoes can change due to the operation of the suspension, so that when the brakes are applied, the brake shoes may touch the spokes.
- If the quick release mechanism is not used correctly, the wheel may come off the bicycle and serious injury could result. Read the Service Instructions for the quick release mechanism thoroughly before use.
- These wheels are designed for riding on paved surfaces. If the wheels are used on unpaved surfaces, the wheels may become bent or damaged, and accidents may result.
- Check that the wheels are fastened securely before riding the bicycle. If the wheels are loose in any way, they may come off the bicycle and serious injury may result.
- Obtain and read the service instructions carefully prior to installing the parts. Loose, worn, or damaged parts may cause injury to the rider. We strongly recommend only using genuine Shimano replacement parts.
- Read these Technical Service Instructions carefully, and keep them in a safe place for later reference.

⚠ CAUTION

- The tires should be inflated to a suitable pressure before use.
- Use rim tape which can withstand high pressures, otherwise the tires may suddenly puncture and come off, and severe injury may result.

CAUTION

- The Shimano R55HC (high performance) brake shoes use an aggressive compound designed with an emphasis on maximum performance in wet conditions, however they will cause accelerated rim wear. Shimano accepts no responsibility for reduced rim life which might occur from using R55HC brake shoes.
- Use of genuine Shimano spokes and nipples is strongly recommended.
- Before use, check that there are no pieces of metal or other foreign objects sticking to the brake pads. If any such items are present, they may cause damage to the rim when the brakes are applied.

Note

- If the wheel becomes stiff and difficult to turn, you should lubricate it with grease.
- Do not apply any lubricant to the inside of the hub, otherwise the grease will come out.
- The hollow on the other side of the valve from the hole is a guide for indicating the wear of the rim. If this hollow is no longer visible, the rim is at the end of its useful life.
- We recommend that you ask authorized bicycle dealers to adjust the spoke tensions if there is any initial play in the spokes and after the first 1,000 km of riding.
- Spoke protectors (CP-FH35 / FH02) are also sold separately. Please ask your bicycle dealer for details.
- For maximum performance we highly recommend Shimano lubricants and maintenance products.

• Reflectors (manufactured by CATEYE) are also sold separately. Please ask your bicycle dealer for details.

< For front >

Model number	Specification	Coloer
RR-550-WUW/W SMN03	CPSC	White
RR-550-WUA/A SMN03	AS	Amber
RR-317-WUA/4K SMN03	DIN	Amber

< For rear >

Model number	Specification	Coloer
RR-550-WUWSW W/O BRACKET	CPSC	White
RR-550-WUASW W/O BRACKET	AS	Amber
RR-317-WUASW W/O BRACKET	DIN	Amber

• Parts are not guaranteed against natural wear or deterioration resulting from normal use.

In order to realize the best performance, we recommend that the following combination be used.

Applicable tire size		Clincher tire
		700C (19C - 28C)
Wheel		WH-R500
Chain	9-speed	CN-7701 / CN-HG93 / CN-HG73
	8-speed	CN-HG50
Cassette sprocket	9-speed	CS-6500 / CS-HG70-9 / CS-HG50-9
	8-speed	CS-HG70-8 / CS-HG50-8
Largest sprocket		21 - 27T

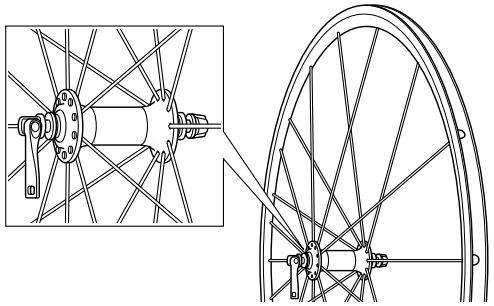
Specifications

Model number		WH-R500
Speeds		9 / 8
Rim size		700C
Applicable tires	Clincher	X
Applicable spoke length	For front	281 mm
	For rear	286 mm / 288 mm
Applicable nipples		#14 BC2.0
Rim width		20.8 mm

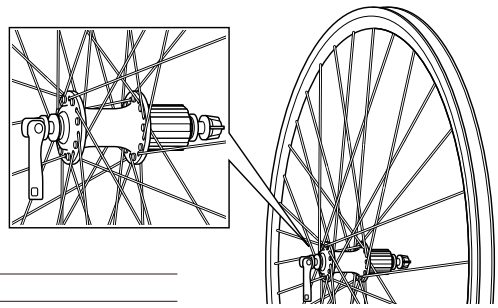
Spoke lacing

Lace the spokes as shown in the illustration.

(For front)
At the front, a radial assembly is used at both the left and right.



(For rear)
At the rear, a tangent assembly is used at the both left and right.

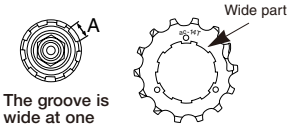


Spoke tension value		
For front	For rear	
	Right (sprocket) side	Left side
800 - 1200 N (180 - 270 lbf)	900 - 1500 N (202 - 337 lbf)	500 - 1000 N (112 - 225 lbf)

* These values should be used as a guide only.

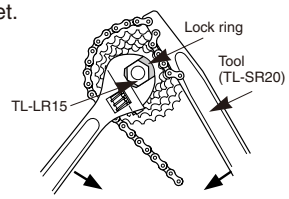
Installation of the HG sprockets

For each sprocket, the surface that has the group mark should face outward and be positioned so that the wide parts of the gear projections on each sprocket and the A part (where the groove width is wide) of the freewheel body are aligned.

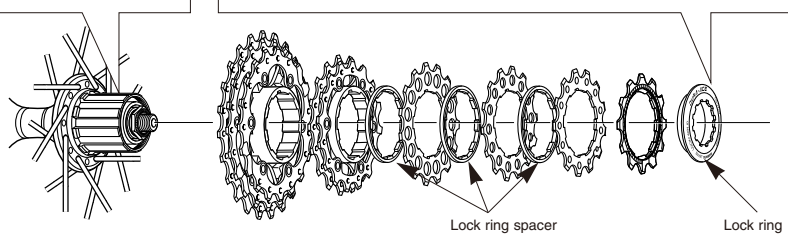


The groove is wide at one place only.

- For installation of the HG sprockets, use the special tool (TL-LR15) to tighten the lock ring.
- To replace the HG sprockets, use the special tool (TL-LR15) and TL-SR20 to remove the lock ring.
  Install the TL-SR20 to the largest sprocket.



Tightening torque:
30 - 50 N·m
{261 - 434 in. lbs.}



Replacement of the freewheel body

After removing the hub axle, remove the freewheel body fixing bolt (inside the freewheel body), and then replace the freewheel body.

Note:
Do not attempt to disassemble the freewheel body, because it may result in a malfunction.

Tightening torque:
35 - 50 N·m {305 - 434 in. lbs.}