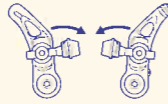


## WARNING

- 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.
- Check that the recommended brake shoe holders have been installed, and that adjustment is correct. If the brake shoes are adjusted incorrectly, the brake shoe holder may contact the spokes when the brake is applied, causing noise.
- Do not use in combination with brakes types such as cantilever brakes in which the brake shoes move in an arc pattern, as the brake shoes may gradually move closer to the spokes and touch them as the brake shoes wear.
- 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.
- Use rim cement to securely affix tubular tires to the rims. If the tires are not fully secure, they may come off the rims, and serious accidents and injury may result.
- The bicycle wheels are designed for competitive riding on sealed roads. If the wheels are used on unsealed roads or roads with rough surfaces, they may become bent or damaged, and accidents may occur as a result.



## CAUTION

- When the brake shoes become worn, the brake shoe holders may interfere with the spokes and cause frictional noise when the brakes are applied or brake performance may drop, even if the brake shoes have been installed correctly. If this occurs, replace the brake shoes as soon as possible.
- The tires should be inflated to a suitable pressure before use.
- Carbon fiber rims become worn due to friction from the brake shoes, and there may be a "run-in" period before the full performance of the rims can be obtained. As the run-in period progresses, the braking force will become stronger. You should take note of the increase in braking force during this time to ensure proper safety.

## CAUTION

- Use R55C carbon fiber rim brake shoes with the WH-7700-Carbon. If brake shoes such as the R55C standard shoes or R55C high-performance shoes are used, the braking force provided by the brakes may be insufficient, or the brake shoes may become abnormally worn.
- Use of genuine Shimano spokes, nipples and washers is strongly recommended. If non-Shimano parts are used, the area where the nipple seats into the hub flange may become damaged.
- 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 hub when the brakes are applied.
- The nipples have large diameters and are easy to rotate in order to make it easier to increase the spoke tension. However, be careful not to overtighten the nipples when adjusting the spoke tensions. If the nipples are overtightened, damage to the rim may result. (We recommended that you ask authorized bicycle dealers to make the adjustments.)

## SERVICE INSTRUCTIONS

SI-4AG0A

# WH-7700-Carbon

Wheel

Before use, read these instructions carefully, and follow them for correct use.

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

Wheel	WH-7700-Carbon
Chain	CN-7700/CN-HG92/CN-HG72
Cassette sprocket	CS-7700/CS-6500/CS-HG70-9
Applicable brake shoe holder	BR-7700/BR-6500
Applicable brake shoes	For R55C carbon fiber rims
Applicable tire size	Tubular tire 700C(19-25C)

## Specifications

Model number	WH-7700-Carbon	
Speeds	9	
Rim size	700C	
Applicable tires	Clincher	—
	Tubular	○
Applicable spoke length	For front	294mm
	For rear	291mm
Rim width	18.8mm	

## Applicable tire size

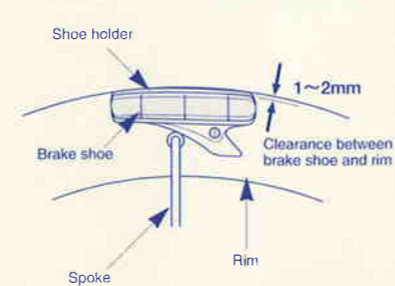
Tubular tire	700C (19-25C)
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## Note:

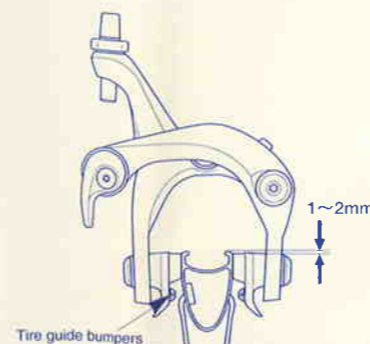
- Use tire tubes with valve lengths of 50 mm or more.
- Special spoke wrenches are available as optional accessories.
- We recommend that you ask authorized bicycle dealers to adjust the spoke tensions if there is any initial play in the spokes and after the first 1,000 km of riding.
- A reflector (SM-RF77) and spoke protector (CP-WH77) are also sold separately. Please ask your bicycle dealer for details.
- For maximum performance we highly recommend Shimano lubricants and maintenance products.

## Brake shoe setting position

Make sure that the brake shoes and brake shoe holders do not touch the spokes.

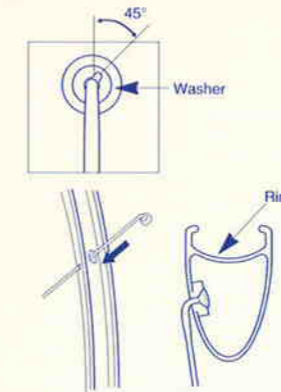


Remove the tire guide bumpers before riding.



## Replacing the spokes

Check that the washer is in the position shown in the illustration, and then hook it onto the side of the rim.



Use only spokes with washers which are specially designed for carbon fiber rims.

## Installation of the HG sprockets

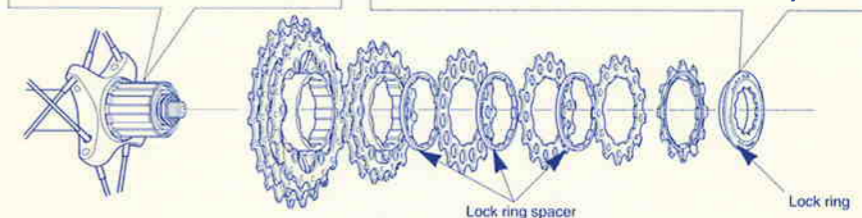
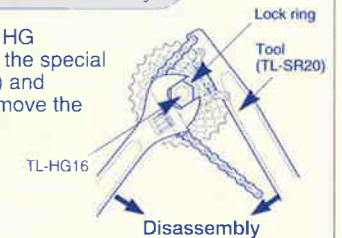
For each sprocket, the surface that has the group mark should face outward and be positioned so that the wide parts of the gear projections on each sprocket and the A part (where the groove width is wide) of the freewheel body are aligned.



- For installation of the HG sprockets, use the special tool (TL-HG16) to tighten the lock ring.

**Tightening torque:**  
30 - 50 Nm {261 - 434 in. lbs.}

- To replace the HG sprockets, use the special tool (TL-HG16) and TL-SR20 to remove the lock ring.



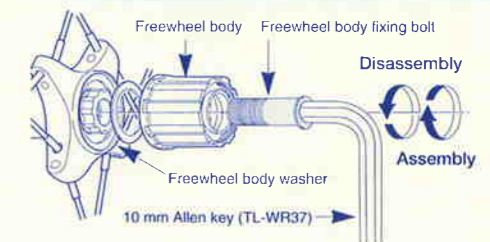
## Replacement of the freewheel body

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 Nm {305 - 434 in. lbs.}



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