



# Maintenance, Service and Repair of the LaserDisc Single Duty Rear Hub

V1

## 1. Before you start



### GENERAL WARNING:

All WTB products should be installed and serviced by a qualified bicycle mechanic using appropriate professional tools. *WTB assumes no liability for products which are improperly installed, removed, assembled, disassembled or configured. Improper installation, adjustment or service may result in damage to the component or component failure.*

Use only genuine WTB replacement parts.

After any installation, adjustment or repair, test your work by taking a test ride in a controlled environment, away from cars, other cyclists, obstacles or other hazards.

Failure to follow these instructions can result in component failure. Component failure can cause the rider to lose control of the bicycle and fall, leading to serious injury or death.

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(a) Identify your hub. The graphics on the hub shell should say LaserDisc Single Duty. *If they do not, find the Maintenance, Service and Repair instructions for your WTB hub model on this web site, at [wtb.com/tech](http://wtb.com/tech).*

(b) Make sure you have read the WTB Hub Instructions which are packed with the hubs and are also available on this web site at [wtb.com/tech](http://wtb.com/tech).

(c) Download, read and follow these Maintenance, Service and Repair instructions.

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## 2. Tools and Equipment

To disassemble and reassemble your hubs, you will need the following tools:

a 5 mm hex key wrench

a single-speed lock ring wrench and chain whip

two 22 mm cone wrenches

a drift punch long enough to tap out a bearing from the opposite side of the hub

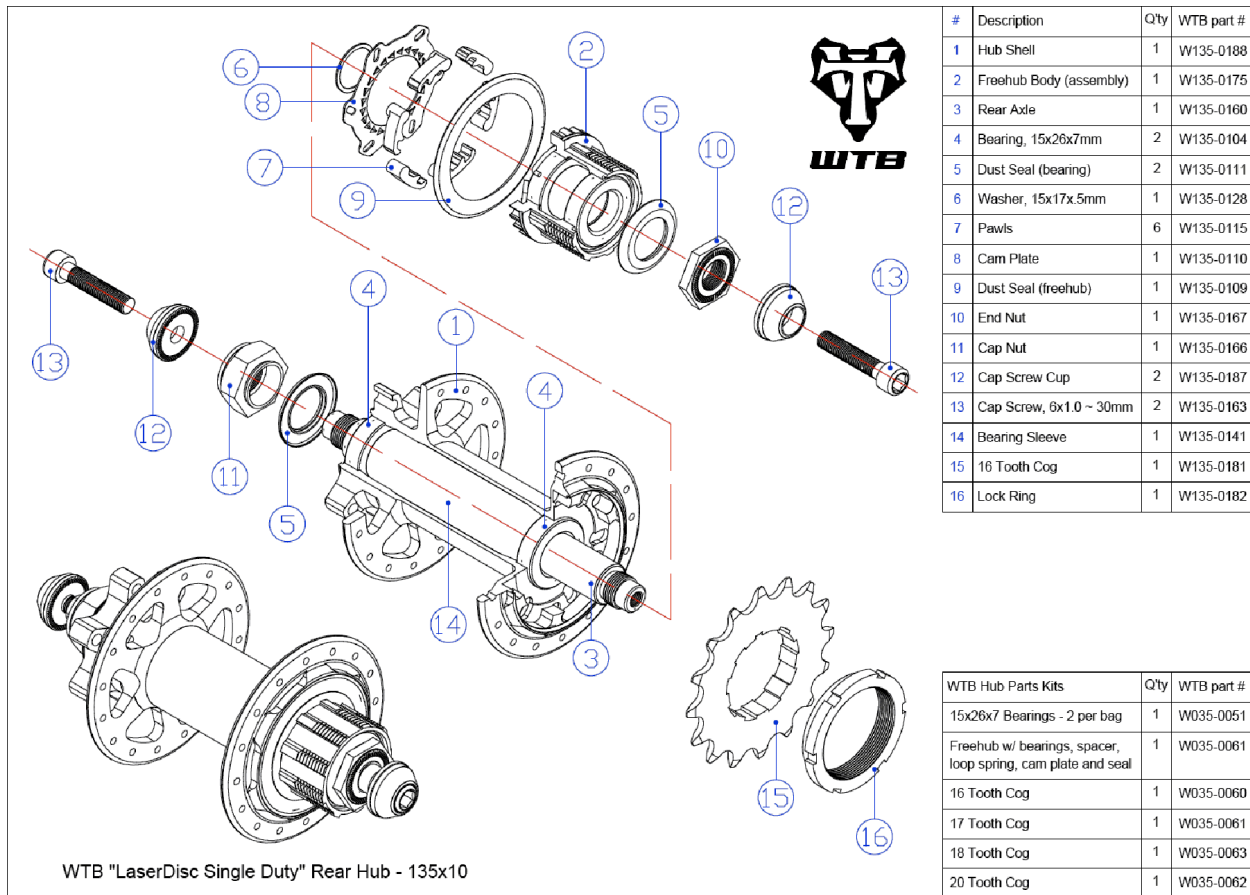
a mallet to tap the drift punch

a small screw driver

a bearing press or soft-jawed vise to press in new bearings

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### 3. Serviceable Parts



### 4. Adjusting the bearings

The LaserDisc Single Duty hub does not need bearing adjustment. There is a small amount of play in the axle when the hub is not clamped in the frame, and this is normal. When the wheel is secured in the frame, the axle system will compress slightly and eliminate the play.

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### 5. Disassembling the hub

With a 5 mm hex key wrench, remove the two Cap Screws (13) and Cap Screw Cups (12).

Remove the Lock Ring (16) and Cog (15).

Holding the axle assembly with one 22 mm cone wrench on the Cap Nut (11), undo the End Nut (10) from the drive side. Then remove the Dust Seal (5) which protects the Freehub (2) bearing.

The Freehub Body (2) can now be removed from the Axle (3), and the axle can be pushed through the Hub Shell (1) and removed. The Hub Shell and Freehub Body are separate pieces, held together by the Axle, so you will be able to separate them. Pieces shouldn't go flying as they are separated, though be careful to not drop any of the Pawls (7) or the axle Washer (6), which may be loose. Now you will be able to access any of the internal parts of the hub.

When re-assembling the hub, put the large Dust Seal (9) on *last*.

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### 6. Replacing the hub bearings

The Bearings (4) have a light press-fit. So, once the hubs are disassembled, the Bearings can be lightly tapped or pressed out. Follow the directions above for taking your hub apart, and from there you will be able to access the 2 Bearings in the Hub Shell and the Bearing in the Freehub Body.

Floating between the hub Bearings is a hollow tube, the Bearing Sleeve (14). Push the Bearing Sleeve to the side with a drift punch or a small screwdriver, so that the opposite inner bearing race is visible through the bearing. Carefully, using a small flat end drift punch, tap on the inner bearing race. This will drive out the bearing. You can then remove the opposite bearing in the same way. The Freehub Body bearing can be tapped out from its back side, again being careful not to drop any of the pawls. Now, carefully tap or press the new Bearings back into place.

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## **7. Contact Information**

If you have any questions or problems with any WTB product, please go to [wtb.com](http://wtb.com) for help.

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## **8. Disclaimer**

The original English language version/meaning of these instructions supercedes all translations. WTB is not responsible for any errors in translation of these or any product instructions.

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