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**WARRANTY & TECHNICAL INFORMATION** 



# INDEX

- 1. INTRODUCTION
- 2. WARRANTY
- 3. CLEANING & MAINTENANCE
- 4. HUB DIAGRAMS
  - **4A. 15X110 FRONT**
  - **4B. 12X148 REAR SRAM XD**
  - 4C. 12X148 REAR SHIMANO HG
  - **4D. 12X148 REAR SHIMANO MS**
- 5. RATCHET SYSTEM
- 6. WHEELBUILDING/BEARING SPECS





## INTRODUCTION

#### **Congratulations on your new Berd TALON hubs!**

By joining the growing number of cyclists switching to Berd spokes & wheels, you're showing a commitment to performance, cutting edge tech, and the spirit of cycling as a whole.

Our mission has always been to push the boundaries of what can be done with bicycle wheels, and the TALON hubs are the natural evolution of that. TALON hubs have been specifically engineered to offer competitive weight, easy installation & maintenance, and excellent long term dependability.

Berd spokes are handmade in the US by dedicated cyclist and engineers alike.





# WARRANTY

In the event of material or manufacturing defects, Berd TALON hubs will be repaired or replaced at the discretion of Berd within the warranty period of 24 months.

#### The following provisions apply:

The 24-month warranty period begins on the date of purchase. The original sales receipt must be presented to make a claim, and the warranty is valid for the original purchaser only.

The warranty applies to products with damage resulting from material or manufacturing defects. Wearing parts such as bearings, gaskets, seals, springs, & freehub ratchets are excluded from the warranty.

The warranty assumes that the product has been used properly, and the maximum system weight has not been exceeded (if applicable).

The warranty assumes that all information about assembly, handling, and maintenance in the operating instructions has been observed. The product must not have been abused, modified, intentionally altered, or used in combination with incompatible parts or tools.

If you make a claim under warranty, the damaged product(s) become the property of Berd LLC when it is sent to us.

Berd LLC is not liable, to the extent permitted by law, in particular for indirect or consequential damage. Further claims relating to product liability and personal injury are reserved.

The place of jurisdiction is the USA. United States law shall apply.

Berd spokes are protected by US Patents 10,150,332 B2, 10,661,598 B2, and patents pending.



# CLEANING & MAINTENANCE

### **GREASE**

All moving parts, O-rings, seals & threads require grease before assembly. The ratchet mechanism requires specific Berd freehub grease (#HUBSP001) to be used for optimal performance. Greasing the freehub mechanism & inspecting the bearings & hub is recommended every 3,000km (1,800mi) or as needed for optimal performance and durability.

### **CLEANING**

For cleaning internal hub components, Berd recommends using a solvent based degreaser. For cleaning the outer hub shell and external hub parts, please clean with a soft cloth and a mild detergent or soap & water.

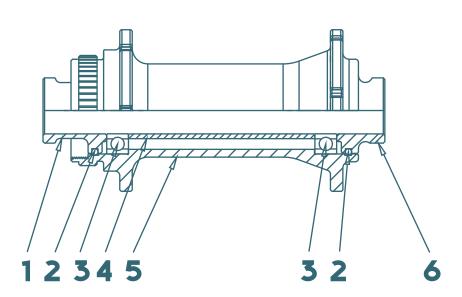
### INTERNAL COMPONENTS

Freehub bodies and ratchet components are able to be replaced by hand. Bearings and other internal components must be serviced by a professional using bearing press and extraction tools that are designed for these purposes. Berd is not responsible for any damage, cosmetic or mechanical, incurred from the improper use of tools.



## **15X110 FRONT**





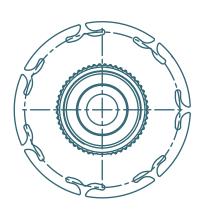
#### DESCRIPTION QTY. PART NUMBER

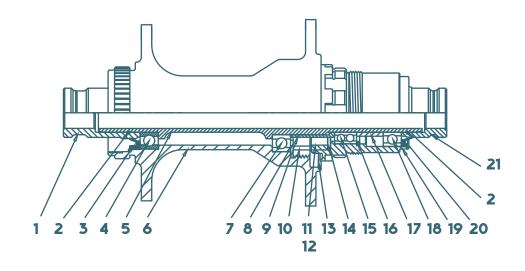
- 1. CAP (ID15)
- 2. O-RING
- 3. **BEARING 6902**
- 4. BUSHING
- 5. HUB SHELL
- 6. CAP (ID15)

- 1X -
- 2X -
- 2X HUBSP003
- 1X -
- 1X TALON FRONT
- 1X -



## **12X148 REAR XD**

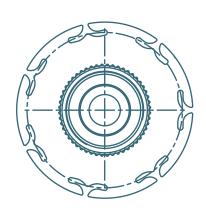


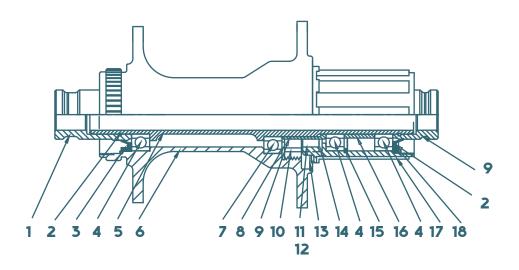


DESCRIPTION		QTY.	PART NUMBER
1.	CAP (ID12)	1X	-
2.	O-RING	1X	-
<b>3</b> .	INTERNAL SEAL	1X	-
4.	<b>BEARING (6902)</b>	1X	HUBSP003
<b>5</b> .	AXLE	<b>1X</b>	-
6.	<b>HUB SHELL</b>	<b>1X</b>	TALON REAR
<b>7.</b>	<b>BEARING (6903)</b>	<b>1X</b>	HUBSP004
8.	WASHER	<b>1X</b>	-
9.	BUSHING	<b>1X</b>	-
10.	RATCHET RING	<b>1X</b>	-
11.	SPRING	<b>1X</b>	-
12.	STAR RATCHET	<b>1X</b>	<b>HUBSP002 (54T)</b>
<b>13</b> .	INTERNAL SEAL	<b>1X</b>	-
14.	C-RING	<b>1X</b>	-
15.	<b>BEARING (15248)</b>	<b>1X</b>	-
16.	CIRCLIP	<b>1X</b>	-
<b>17.</b>	BUSHING	<b>1X</b>	-
18.	<b>BEARING (15267)</b>	<b>1X</b>	-
19.	XD CASSETTE BODY	<b>1X</b>	HUBFHXD
20.	INTERNAL SEAL	<b>1X</b>	-
<b>21</b> .	CAP (ID12)	<b>1X</b>	-



## **12X148 REAR HG**



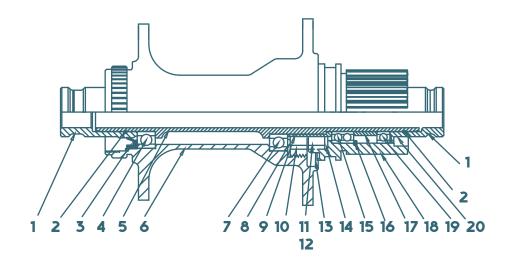


DESCRIPTION		QIY.	PARI NUMBE
1.	CAP (ID12)	1X	-
2.	O-RING	<b>1X</b>	-
<b>3</b> .	INTERNAL SEAL	<b>1X</b>	-
4.	<b>BEARING (6902)</b>	<b>3</b> X	HUBSP003
<b>5</b> .	AXLE	<b>1X</b>	-
6.	<b>HUB SHELL</b>	<b>1X</b>	TALON REAR
<b>7</b> .	<b>BEARING (6903)</b>	<b>1X</b>	HUBSP004
8.	WASHER	<b>1X</b>	-
9.	BUSHING	<b>1X</b>	-
10.	RATCHET RING	<b>1X</b>	-
11.	SPRING	<b>1X</b>	-
<b>12</b> .	STAR RATCHET	<b>1X</b>	<b>HUBSP002 (54T)</b>
<b>13</b> .	INTERNAL SEAL	<b>1X</b>	-
14.	C-RING	<b>1X</b>	-
<b>15</b> .	CIRCLIP	<b>1X</b>	-
16.	BUSHING	<b>1X</b>	-
<b>17.</b>	<b>HG CASSETTE BODY</b>	<b>1X</b>	HUBFHHG
18.	INTERNAL SEAL	1X	-
19.	CAP (ID12)	1X	-



## **12X148 REAR MS**

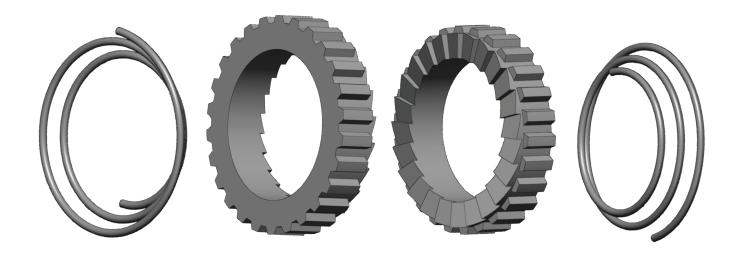




DESCRIPTION		QTY.	PART NUMBE	
1.	CAP (ID12)	1X	-	
2.	O-RING	1X	-	
<b>3</b> .	INTERNAL SEAL	1X	-	
4.	<b>BEARING (6902)</b>	1X	HUBSP003	
<b>5</b> .	AXLE	1X	-	
6.	<b>HUB SHELL</b>	1X	<b>TALON REAR</b>	
<b>7.</b>	<b>BEARING (6903)</b>	1X	HUBSP004	
8.	WASHER	<b>1X</b>	-	
9.	BUSHING	<b>1X</b>	-	
10.	<b>RATCHET RING</b>	<b>1X</b>	-	
11.	SPRING	<b>1X</b>	-	
<b>12</b> .	STAR RATCHET	<b>1X</b>	<b>HUBSP002 (54T)</b>	
<b>13</b> .	INTERNAL SEAL	<b>1X</b>	-	
14.	C-RING	<b>1X</b>	-	
<b>15</b> .	<b>BEARING (15248)</b>	<b>1X</b>	15248	
16.	CIRCLIP	<b>1X</b>	-	
<b>17.</b>	BUSHING	<b>1X</b>	-	
18.	<b>BEARING (6802)</b>	<b>1X</b>	6802	
19.	MS CASSETTE BODY	<b>1X</b>	HUBFHMS	
20.	INTERNAL SEAL	<b>1X</b>	-	
21.	CAP (ID12)	1X	_	



# RATCHET SPECIFICATIONS



36T RATCHET ENGAGEMENT DEGREES 10°

54T RATCHET ENGAGEMENT DEGREES 6.66°

RECOMMENDED

GREASE BERD FREEHUB GREASE

Installation Notes: Ensure that the star ratchet and any contact points inside the hub are thoroughly greased. Do not use tools to install or remove ratchet mechanisms. Always ensure that the ratchet rings are securely seated in the hub, the springs are the correct orientation, and the hub endcaps are fully installed before riding.



# BEARING & HUB SPECIFICATIONS

## **BEARINGS**

HUB BEARINGS - FRONT	LEFT/NDS RIGHT/DS	6902 6902
HUB BEARINGS - REAR	LEFT/NDS RIGHT/DS	6902 6903
FREEHUB BEARINGS - XD	INBOARD OUTBOARD	15267 15248
FREEHUB BEARINGS - MS	INBOARD OUTBOARD	6802 15248
FREEHUB BEARINGS - HG	INBOARD OUTBOARD	6902 6902

## HUBS

FRONT HUB

PITCH CIRCLE: 44 MM (LEFT), 44 MM (RIGHT)

CNTR - FLANGE: 28 MM (LEFT), 40 MM (RIGHT)

REAR HUB

PITCH CIRCLE: 60 MM (LEFT), 64 MM (RIGHT)

CNTR - FLANGE: 41 MM (LEFT), 22 MM (RIGHT)

