

TekDoc

RATCHET SYSTEM

USER MANUAL

2025



EVO WHEELS

BH

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01 INTRODUCTION

This user manual contains important information for the proper use and maintenance of the bike. In particular, the document contains specific information for the following family of bicycles:

MTB bikes & MTB ebikes

It is recommended that you read the entire manual carefully. You can consult the user manuals of all BH models on the web at the following address:

<https://www.bhbikes.com/manuals>

Remember that the manuals are periodically updated on the BH BIKES website, keep them always up to date. Consult the version in the footer.

This document contains complementary information to the general user manual, available at:

https://www.bhbikes.com/es_INT/quienes-somos/manuales-descargas

Consult the characteristics, recommendations and guarantees of third party components on their respective official websites.

EVO WHEELS

This document will provide clear instructions on the assembly of the wheel and its correct installation on the bicycle. The proper construction and assembly of each component of the system will be detailed to ensure efficient and safe operation.



The main functionalities of the different elements that are part of this article will also be explained, describing how each component contributes to the overall performance of the bike. In addition, additional resources provided by BH are included, designed to facilitate maintenance and extend the useful life of the equipment.

This document gathers relevant technical information about the EVO CARBON and EVO ALU wheel models, highlighting their features, advantages and key aspects to take into account during use and installation.

RATCHET SYSTEM

EVO wheels feature a one-way power transmission mechanism located inside the hub. This system facilitates the engagement and release of the wheel cassette. The sprockets engage all their angled teeth simultaneously, ensuring smooth and efficient power transfer.

Ratchet technology improves hub efficiency, reducing friction and maximising the power transferred to the cycle. In addition, EVO wheels are more durable than other systems, which is ideal for those who ride long distances or face difficult terrain. Also, their design simplifies maintenance, allowing riders to enjoy their rides more without worrying so much about adjustment and repair tasks. In short, EVO wheels offer innovation, efficiency and durability with every pedal stroke.

INSPECTION BEFORE USE

BH bicycles and components are repeatedly checked during manufacture and finally at the final inspection by your BH workshop. Since the functioning of the bicycle or its components may be modified during transport or it is possible that third parties may have modified your wheels during the waiting time, you should check the following before each ride:

- **TIRES:** that the pressure is correct and that there are no cuts in the tread area or on the sidewalls. Also check that the level of wear does not exceed the maximum recommended wear.
- **WHEELS:** allow the wheels to spin freely to check the spinning. Also check the clearance between the brake lining and the rim, as well as the clearance between the frame and the tyre.

02 BH GUARANTEE

BH BIKES is committed to offering durable bicycles of the highest quality standards. Therefore, in addition to the legal guarantee attached to these products, an additional BH BIKES guarantee and coverage conditions are offered.

LEGAL WARRANTY

The legal warranty covers the original purchaser against manufacturing defects and/or lack of conformity. This warranty applies to both BH BIKES frames and components. The period of application will vary according to the legislation in force in the country of purchase, and with legal application from the date of purchase. During this period, the holder of the guarantee will have the right to free repair or replacement of manufacturing defects, including transport or travel expenses, and the damages caused by them. There are different conditions to be met in order to benefit from the warranty:

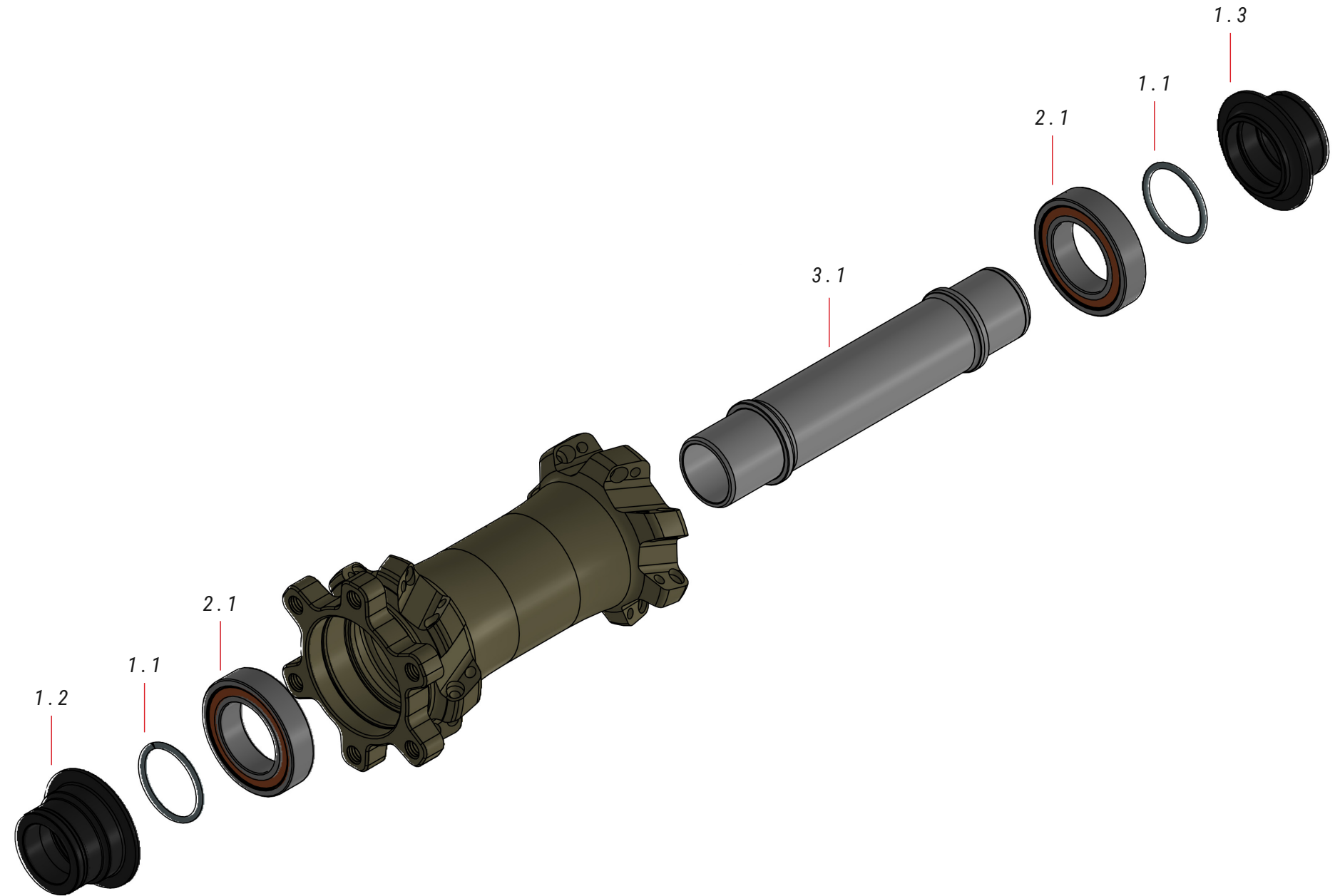
- This warranty does not affect the rights available to the consumer under the legislation in force in each country.
- The inclusion of a defective bicycle or part in the warranty conditions is ultimately subject to the decision of our Technical Service.
- The warranty does not under any circumstances cover the replacement of parts whose wear and tear results from the normal use of the bicycle.
- The warranty is in no case applicable to breakages or defects derived from negligent use of the bicycle, use in competition, assembly of non-original accessory elements, or inadequate manipulations and maintenance operations.
- The warranty is in no case applicable if the Inspection Before Delivery and the corresponding Inspection Intervals included in this document have not been carried out, duly completed and stamped by an authorised BH dealer.
- In the event that the repair carried out is not satisfactory, and the object does not meet the optimum conditions to comply with the use for which it was intended, the holder of the guarantee shall be entitled to the replacement of the purchased object, or the defective component, with another of identical characteristics, or to the refund of the price paid for the deteriorated object or component.
- The warranty period will be suspended for the duration of the repairs, and in the case of replacement of the good or component, the warranty period will be renewed with respect to the affected element.
- The action to claim compliance with the provisions of the warranty will expire six months after the end of the warranty period.
- All claims must be made through an authorised dealer.
- Territorial scope: consult the User Manual or [www. BHbikes.com](http://www.BHbikes.com).

Visit the following link for full terms and conditions:

https://www.bhbikes.com/es_ES/registro-garantia-vida-bh/registra-tu-bici-garantia-de-por-vida

03 COMPONENTS AND ASSEMBLY

The front hub assembly that integrates the EVO wheel with ratchet system consists of the parts and hardware listed below.



01 FRONT CLOSURE

ref.: 363303900

No.	Item	Quantity
1.1	Ring	2
1.2	Left front closure	1
1.3	Right front closure	1

02 FRONT BEARING

ref.: 381539200

No.	Item	Quantity
2.1	Bearing	2

03 FRONT AXLE

ref.: 391867700

No.	Item	Quantity
3.1	Front axle	1

03 COMPONENTS AND ASSEMBLY

The MSA rear hub assembly that integrates the EVO wheel with ratchet system is composed of the parts and hardware listed below.

04 REAR CLOSURE MSA ref.: 363304000

No.	Item	Quantity
4.1	Left rear closure MSA	1
4.2	Right rear closure MSA	1
4.3	Ring	2

05 MSA REAR HUB ref.: 381539300

No.	Item	Quantity
5.1	Spacer	1
5.2	Spring ratchet	1
5.3	Spring support	1
5.4	40T crown Fixed rear hub	1
5.5	40T crown Free rear hub	1

06 NUCLEUS MSA ref.: 385291400

No.	Item	Quantity
6.1	Bearing	2
6.2	MSA Bushing Core	1
6.3	Ring	1
6.4	Spacer	1
6.5	Seal	1

07 REAR BUSHING BEARINGS ref.: 391867500

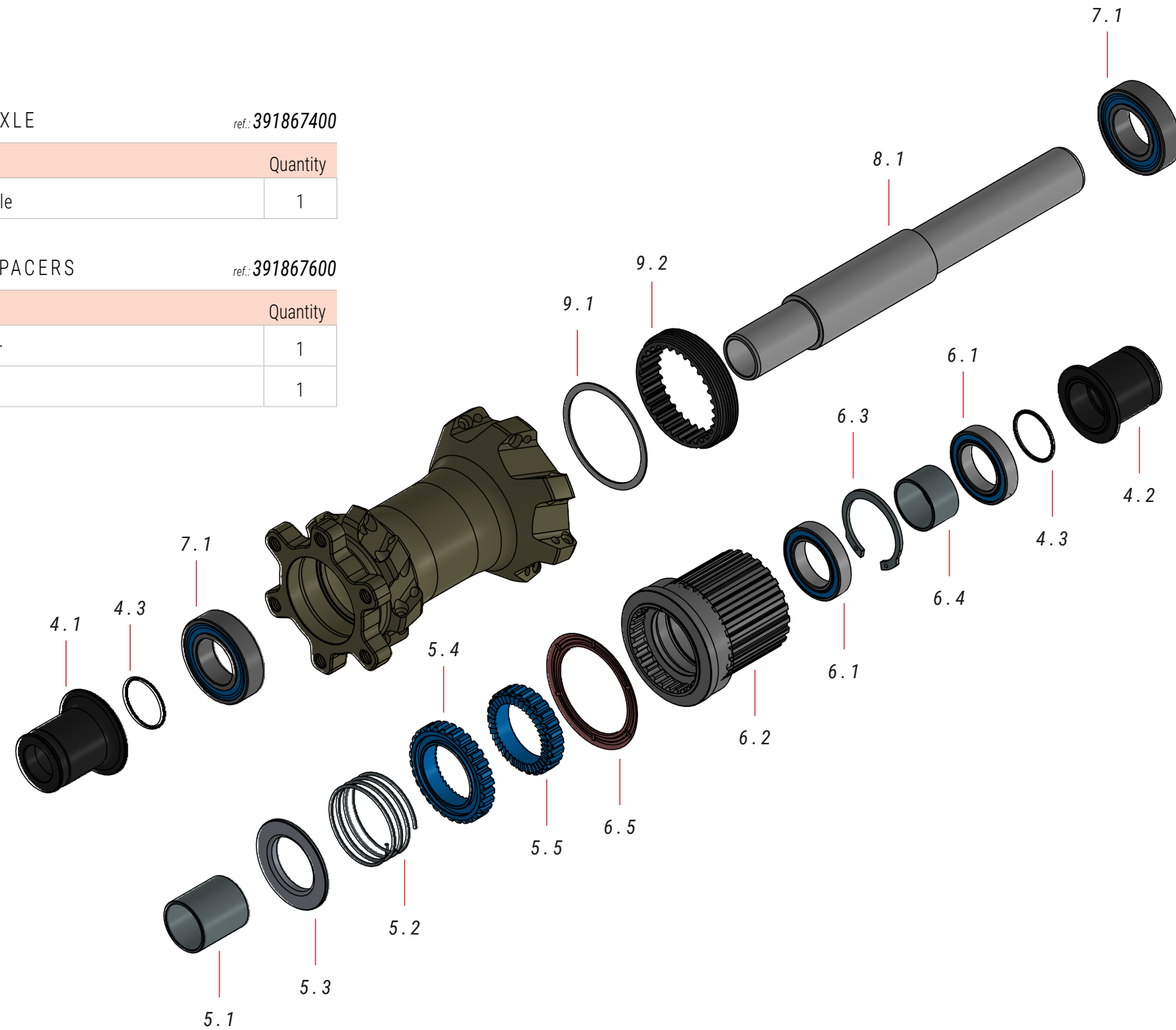
No.	Item	Quantity
7.1	Rear bushing bearing	2

08 REAR AXLE ref.: 391867400

No.	Item	Quantity
8.1	rear axle	1

09 REAR SPACERS ref.: 391867600

No.	Item	Quantity
9.1	Washer	1
9.2	Ring	1



03 COMPONENTS AND ASSEMBLY

The XDA rear hub assembly that integrates the EVO wheel with ratchet system consists of the parts and hardware listed below.

10 BACK CLOSURE XDA ref.: 363304100

No.	Item	Quantity
10.1	Back closure left XDA	1
10.2	Back closure right XDA	1
10.3	Ring	2

11 REAR HUB XDA ref.: 381570600

No.	Item	Quantity
11.1	Spacer	2
11.2	Spring ratchet	1
11.3	Spring bracket	1
11.4	40T crown Fixed rear hub	1
11.5	40T crown Free rear hub	1

12 XDA HUB ref.: 385291500

No.	Item	Quantity
12.1	Bearing	2
12.2	XDA Hub Hub Hub	1
12.3	Spacer	2
12.4	Seal	1

07 REAR BUSHING BEARINGS ref.: 391867500

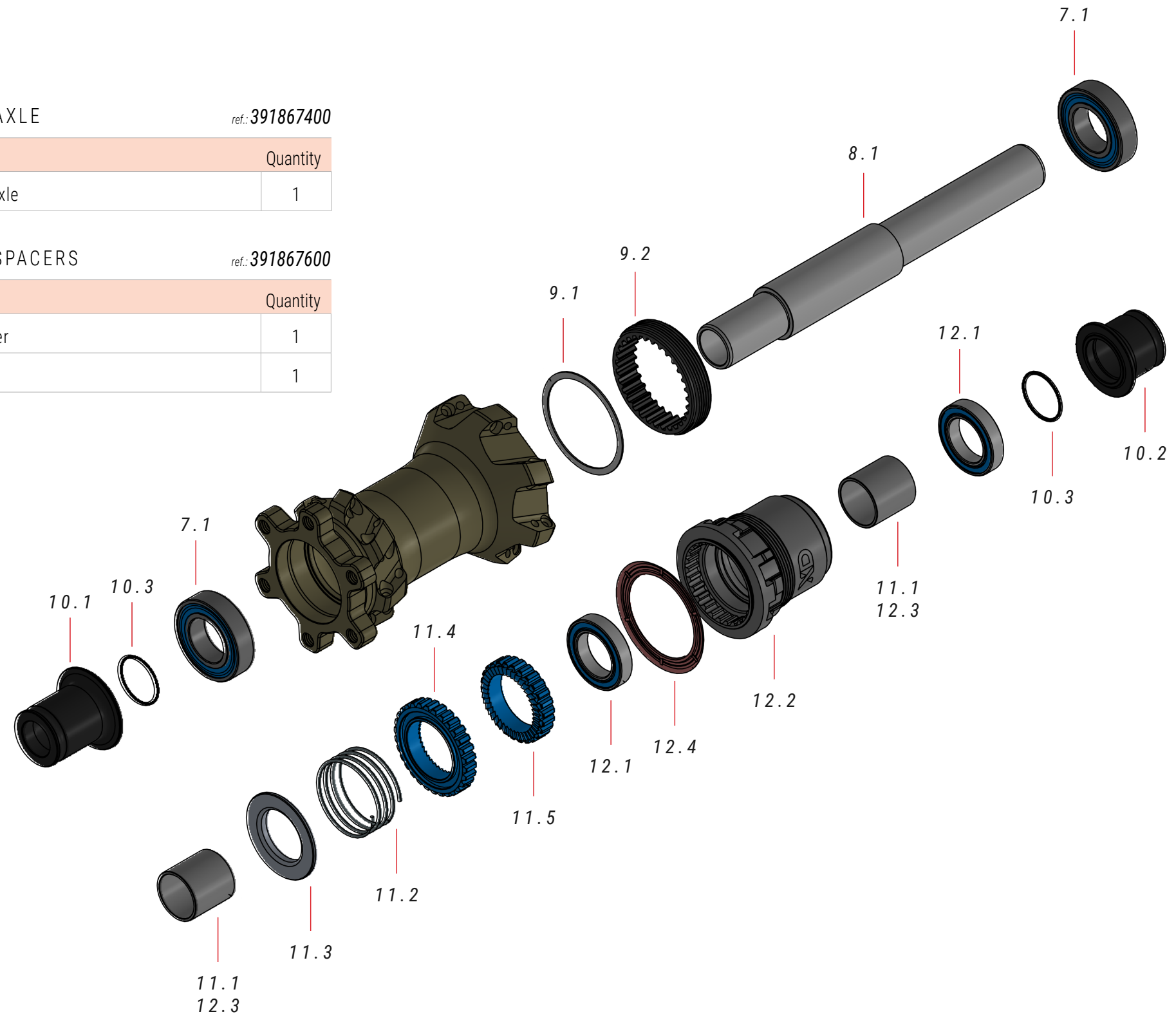
No.	Item	Quantity
7.1	Rear bushing bearing	2

08 REAR AXLE ref.: 391867400

No.	Item	Quantity
8.1	rear axle	1

09 REAR SPACERS ref.: 391867600

No.	Item	Quantity
9.1	Washer	1
9.2	Ring	1





04 DECLARATION OF CONFORMITY

TEST REPORT

REPORT NO: N24050204
PAGE: 1 OF 3
DATE: Jun/03/2024

Product description: Wheel
Style/Item No.: MD628-DR836F-MSA
Additional information: Front Wheel
Sample quantity: 1PC
Sample received date: May/21/2024
Test Reference: Annex A of ISO 4210-7:2023 for city and trekking, young adult and mountain bicycles requirement and test methods.

Remark: (1) Product sent by applicant have been tested by our laboratory. The test result included in this report.
(2) This test report is responsible only for the tested product, not for the suit .
(3) This report contains 3 pages, it cannot be abstracted and copied separately.



Approved by:  Inspected by: 

TEST REPORT

REPORT NO: N24050212
PAGE: 1 OF 3
DATE: Jun/03/2024

Product description: Wheel
Style/Item No.: MD628-DR836R-MSA
Additional information: Rear Wheel
Sample quantity: 1PC
Sample received date: May/22/2024
Test Reference: Annex A of ISO 4210-7:2023 for city and trekking, young adult and mountain bicycles requirement and test methods.

Remark: (1) Product sent by applicant have been tested by our laboratory. The test result included in this report.
(2) This test report is responsible only for the tested product, not for the suit .
(3) This report contains 3 pages, it cannot be abstracted and copied separately.

Approved by:  Inspected by: 

05 ADDITIONAL HELP AND RESOURCES

At BH we put at your disposal different means to solve all your doubts. You can also become part of our global community of cyclists through our social networks.

TECHNICAL RESOURCES

On the BH Bikes website you will find all the resources you need to tune up your bike. In the following link you can access the user manuals, apps, warranties, files to update the displays and explanatory videos for different operations:

<https://www.bhbikes.com/manuals>

You can also see step-by-step explanations for different maintenance and tuning operations on our specialised

Youtube channel:

<https://www.youtube.com/user/ServicioTecnicoBH>

CONTACTS

Our authorised dealers have the knowledge and resources to help you with everything related to your bike. Don't hesitate to contact your nearest dealer. You can find it at the following link:

https://www.bhbikes.com/es_INT/tiendas/buscador-de-tiendas

Tel: + 34 945 13 52 02

info@bhbikes.com info@bhbikes.com

P.I. Jundiz- Perretagana 10, 01015 Vitoria, Alava (Spain)

SOCIAL NETWORKS

Be part of our global community of cyclists. Discover the BH experiences of other cyclists and share yours.





www.bhbikes.com

