



# **WARNING!**

Always wear protective gloves and glasses while working on the bicycle.



# **EKAR 13s SPROCKETS**

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#### THIS TECHNICAL MANUAL IS INTENDED FOR USE BY PROFESSIONAL MECHANICS.

Anyone who is not professionally qualified to assemble bicycles should not attempt to install and operate on the components because of the risk of carrying out incorrect operations that could cause the components to malfunction with the consequent risk of accidents, physical injury or even death.

The actual product may differ from what is illustrated, as the specific purpose of these instructions is to explain the procedures for using the component.

### 1 - TECHNICAL SPECIFICATIONS

MIN. SPROCKET	9	
MAX. SPROCKET	44	
TIGHTENING TORQUE	Z9: 45 Nm	
	Z10: 40 Nm	

### 2 - COMPATIBILITY

CHAIN	13s	
	Integrated	Δ
FIXING RING	9-36 / 9-42	
	10-44	

COMBINATION	A	В
9-36	45	Ø 147
9-42	45	Ø 171
10-44	45	Ø 179



#### **WARNING!**

Different combinations from those included in the table could cause the malfunction of the drivetrain and result in an accident, personal injury or death.

## 3 - INTERFACE WITH THE FRAME

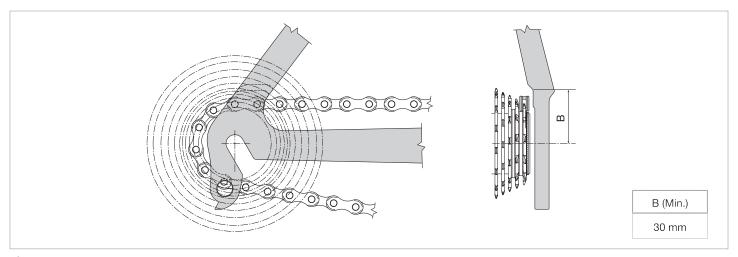


Fig.1

The stroke of the cage in relation to the cable throw is checked by Campagnolo Quality Control for each single piece produced. The distance of the rear derailleur hanger from the first sprocket influences this stroke, so it is indispensable to stay within the tolerance prescribed as per the drawing (Fig. 2).

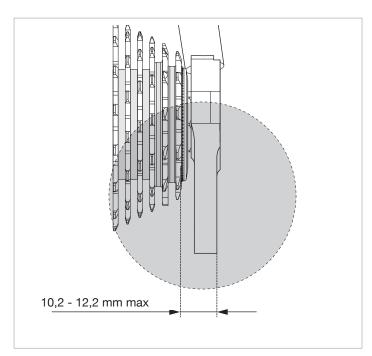


Fig.2

## 4 - 13s SPROCKETS ASSEMBLY



#### **WARNING! COMPATIBILITY**

The sprockets need to be fitted to an N3W Campagnolo body (Fig.1).

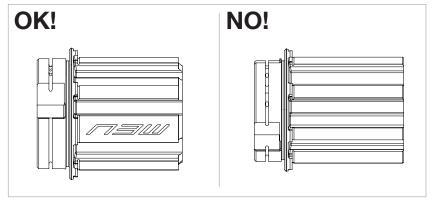


Fig.1

• Engage the largest sprocket assembly with the FW body, lining up the profile of both splines (Fig. 2).

The profile of the FW body with two asymmetrical splines (Fig. 2) makes sprocket alignment automatic since there's only one way to fit them.

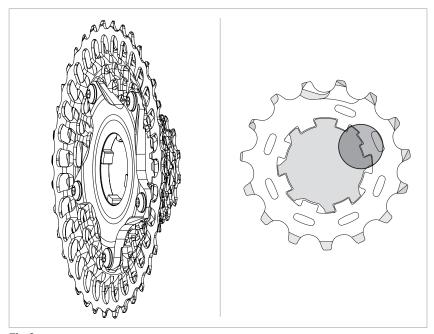


Fig.2

- Engage the smallest sprocket assembly with the FW body (Fig. 3).
  - For sprocket cassettes starting from Z9, the ring nut is built into the smallest sprocket assembly (Fig. 3).

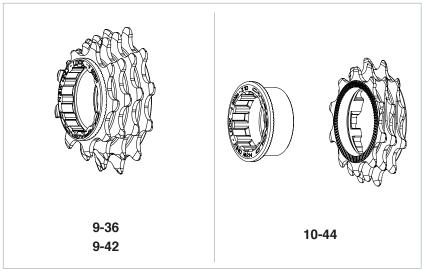


Fig.3

• Using a torque wrench (D - Fig. 4) together with Campagnolo® tool UT-BB080 (B - Fig. 4), tighten the locknut (G - Fig. 4) on the FW body to **45 Nm** (**398 in.lbs**) for sprocket cassettes starting from Z9 (unless otherwise indicated on the locknut) or **40 Nm** (**354 in.lbs**) for sprocket cassettes starting from Z10 (unless otherwise indicated on the locknut).

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#### **WARNING!**

The ring and the smallest sprocket (Z10) have a specific knurl which is compatible solely and exclusively with 13s versions. Other combinations may cause accidents, physical injury and death.

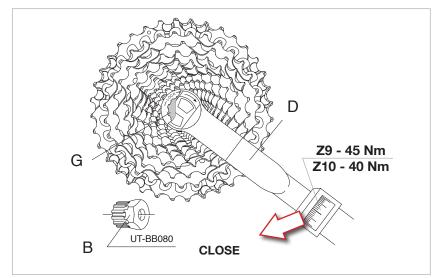


Fig.4

### 5 - 13s SPROCKET REMOVAL

- Remove the locknut (G Fig. 5) using Campagnolo® tool UT-BB080 (B Fig. 5) with a 24 mm Allen wrench (E Fig. 5) and wrench with chain Campagnolo® UT-CS060 (X Fig. 5), or equivalent tool.
- Remove the sprockets from the FW body.

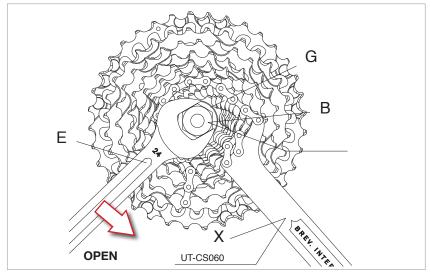


Fig.5

Use Campagnolo® 13 Speed sprockets only.

### 6 - MAINTENANCE

The life of the components depends on conditions of use and on the frequency and quality of maintenance. To keep the components in good condition, cleaning and lubrication must therefore be repeated frequently, especially if it is subjected to heavy-duty use (i.e. after washing your bicycle, after every ride in wet, dusty or muddy conditions etc.).

- Dirt seriously damage bicycles and their components. Thoroughly rinse, clean and dry your bike after using it in these conditions.
- Never spray your bicycle with water under pressure. Pressurized water, even from the nozzle of a small garden hose, can pass seals and enter into your Campagnolo® components, damaging them beyond repair. Wash your bicycle and Campagnolo® components by wiping them down with water and neutral soap.
  Dry them using a soft cloth. Never use abrasive or metal pads.



For cleaning the bicycle only use environmentally-friendly and neutral products without caustic substances and safe to use for you and for the environment.

- Dry the drivetrain with a soft cloth: never use abrasive sponges or metal scouring pads.
- Before lubricating, carefully clean the drivetrain (system, sprocket pack, chainrings and rear derailleur wheels) with a brush or cloth soaked in a specific degreaser/detergent. In the case of dust or mud, remove any residuals with specific plastic tools.
- Relubricate the components carefully using a lubricant suitable to purpose.



#### WARNING

Using poor-quality or incorrect lubricant may damage the chain and cause excessive wear or damage to the system. A damaged drive system can malfunction, resulting in an accident, personal injury or death.

- After application, turn the hand cranks using all the possible gear combinations in order to properly lubricate the entire drivetrain.
- · Carefully clean any remaining lubricant remaining on the bicycle or the floor



#### **WARNING!**

Lubricant residues on the rims, brake shoes, discs and brake pads can decrease or nullify your bicycle's braking capacity, and can lead to accidents, physical injuries, or even death.



#### WARNING!

Salty environments (such as winter roads or roads near the sea) may lead to galvanic corrosion of most of the bicycle's exposed components. To prevent damage, malfunctions and accidents, rinse, dry and carefully re-lubricate all components which are subject to this phenomenon.