



11s CRANKSET ULTRA-TORQUE

(FROM MY 2015)

WARNING!

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



11s CRANKSET

					
(2015 / 2019)			(2018 / 2019)	(2018 / 2019)	(a partire dal 2018)




 **WARNING!**

THIS TECHNICAL MANUAL IS INTENDED FOR USE BY PROFESSIONAL MECHANICS.

Anyone who is not a qualified professional for bicycle assembly must not attempt to install and operate on the components independently due to the risk of carrying out incorrect operations which could cause the components to malfunction, resulting in 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

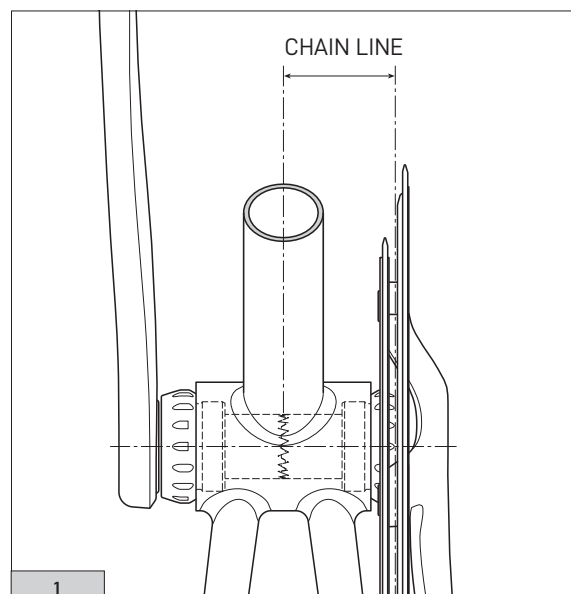
11s ULTRA-TORQUE CRANKSET	BOLT CIRCLE DIAMETER	CHAIN LINE	CHAINRINGS WHEELBASE	MINIMUM CHAINSTAY LENGHT
				
50/34 52/36 53/39	112 mm (min. chainring Ø) 145 mm (max. chainring Ø)	43,5 mm	7,6 mm	405 mm (frames for traditional brakes)
				
50/34 52/36 53/39	112 mm (min. chainring Ø) 145 mm (max. chainring Ø)	44,5 mm	8 mm	405 mm (frames for traditional brakes) 410 mm (telai per freni a disco)
				
50/34 52/36	112 mm (min. chainring Ø) 145 mm (max. chainring Ø)	44,5 mm	8 mm	405 mm (frames for traditional brakes)

 **WARNING!**

Combinations other than those provided in the table may cause malfunction of the crankset and cause accidents, personal injury or death.

1.1 - CHAIN LINE SIZE

- Chain line for double crankset (Fig. 1).



2 - COMPATIBILITY

The use of components that do not belong to the correct range may significantly reduce the overall performance of the drivetrain and it is therefore advisable not to mix components from the old ranges with those from the new one.

To make using the right performance components even simpler, Campagnolo has introduced a distinctive marking system (a letter in a square border) on the components to indicate compatibility.

Check the correspondence of the letter (if present), on the components involved in the derailleur shifting and in the derailleurs.







MARKING ON THE ULTRA-TORQUE 11s CRANKSETS

MARKING ON THE ULTRA-TORQUE 11s CRANKSETS			

11s ULTRA-TORQUE CRANKSET	MARKING CHAINRINGS	FRONT DERAILLEUR	ERGOPOWER COMMANDS	ERGOPOWER COMMANDS MARKING
Super Record 11s Record 11s Chorus 11s (2015 / 2019)	A	Super Record 11s Record 11s Chorus 11s (2015 / 2019)	Super Record 11s Record 11s Chorus 11s (2015 / 2019)	A
Potenza 11™ HO (2018 / 2019)	CD	Potenza 11™	Potenza 11™ HO (2018 / 2019) FOR TRADITIONAL BRAKE	C
			Potenza 11™ HO FOR DISC BRAKE	C
Centaur 11s	CD	Centaur 11s	Centaur 11s	D
Campagnolo H11	H	Super Record 11s Record 11s Chorus 11s (2015 / 2019)	Campagnolo H11 FOR DISC BRAKE	NONE MARKING
		Super Record 11s EPS Record 11s EPS (only with V3 Power Unit and Interface)	Campagnolo H11 EPS FOR DISC BRAKE	NONE MARKING

 **WARNING!**

The HO (Hydraulic Optimisation) cranksets and Centaur 11, with the 8 mm chainring wheelbase, are only compatible with the Ergopower H11 commands, Ergopower Potenza 11™ HO (Hydraulic Optimisation) commands and Ergopower Centaur 11 commands. Combinations other than those provided in the table may cause malfunction of the crankset and cause accidents, personal injury or death.

11s ULTRA-TORQUE CRANKSET	SEMIAXLES	INSERTION SIDE OF THE CENTRAL SCREW	CENTRAL SCREW
	TITANIUM	RIGHT	TITANIUM Screw in an anti-clockwise direction
			STEEL Screw in a clockwise direction
  	STEEL	RIGHT	STEEL Screw in a clockwise direction
			STEEL Screw in a clockwise direction
 	STEEL	LEFT	STEEL Screw in a clockwise direction
			STEEL Screw in a clockwise direction

 **WARNING!**

Combinations other than those provided in the table may cause malfunction of the crankset and cause accidents, personal injury or death.

2.1 - PIVOT PEDAL COMPATIBILITY

WARNING!

Do not put washers between the pedal axle and hand crank as they would give rise to abnormal tensions in the interface area. Such tensions could lead to premature breaks and be the cause of accidents, physical injuries or even death.

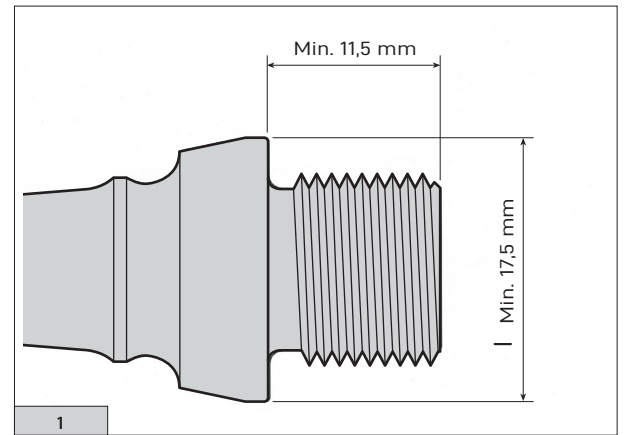
WARNING!

The stop chain ring of the pedal pivot must respect the dimensions indicated in Fig.1.

These conditions are necessary to minimise the possibility of abnormal tensions in the hand cranks. Such tensions could lead to premature breaks and be the cause of accidents, physical injuries or even death.

NOTE

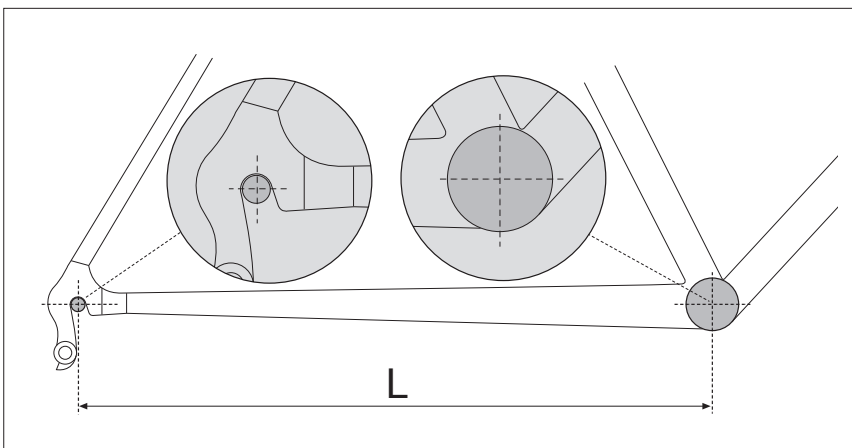
Q-factor: 145.5 mm (nominal value).



1
PEDAL THREAD
9/16x20 TPI

3 - INTERFACE WITH THE FRAME

3.1 - MINIMUM CHAINSTAY LENGTH



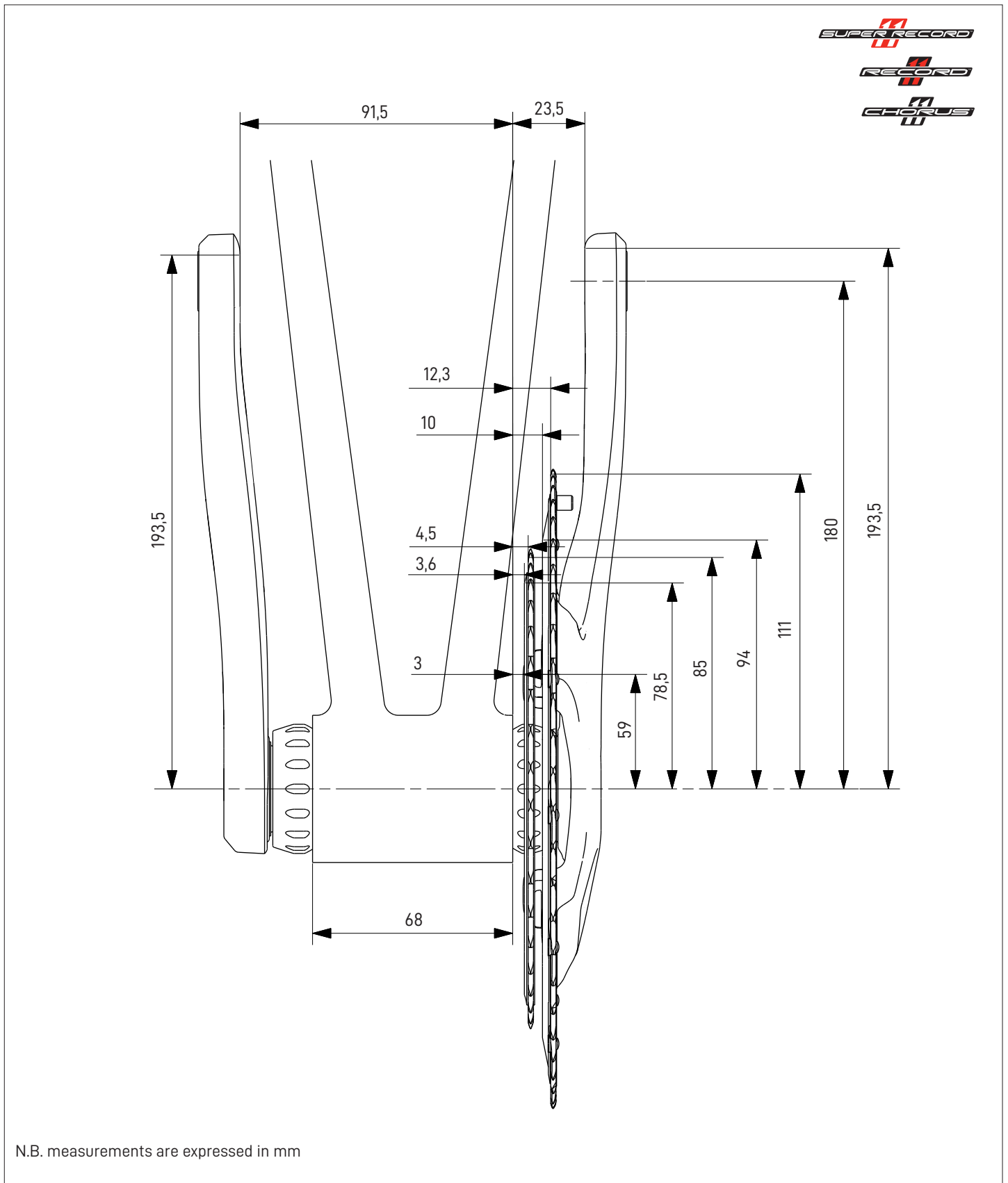
FRAMES FOR TRADITIONAL BRAKES

L = 405 mm min.

FRAMES FOR DISC BRAKES

L = 410 mm min.

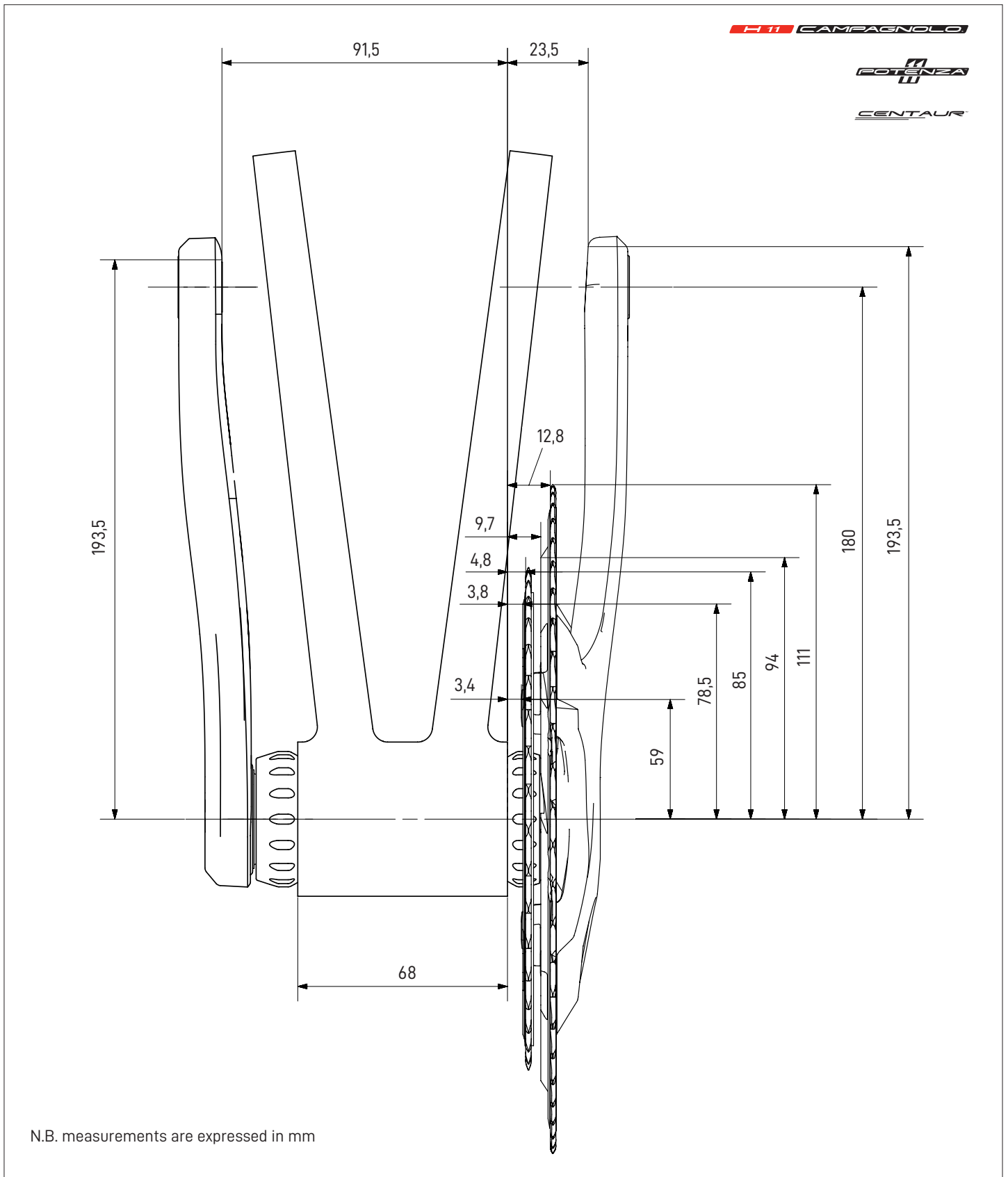
3.2 - OVERALL DIMENSIONS FOR THE 11s ULTRA - TORQUE CRANKSETS



Note

The compatibility between the bottom bracket shells and the relative bottom bracket cups is indicated in the "Bottom bracket cup" chapter of the technical manual.

3.3 - OVERALL DIMENSIONS FOR THE 11s ULTRA - TORQUE CRANKSETS



Note

The compatibility between the bottom bracket shells and the relative bottom bracket cups is indicated in the "Bottom bracket cup" chapter of the technical manual.

4 - ASSEMBLY

After installing the bottom bracket cups specific for your Ultra-Torque crankset in the bottom bracket shell (to understand the exact compatibility, refer to the "Bottom bracket cup" chapter of the technical manual).

- Insert the right hand crank fully down in the bottom bracket shell (fig. 1).

- Push the spring to make the two ends enter in the small holes (fig. 2).

- Move the right hand crank to the side as if to extract it from the bottom bracket, to ensure that the spring was positioned correctly and is retaining the hand crank (Fig. 3)

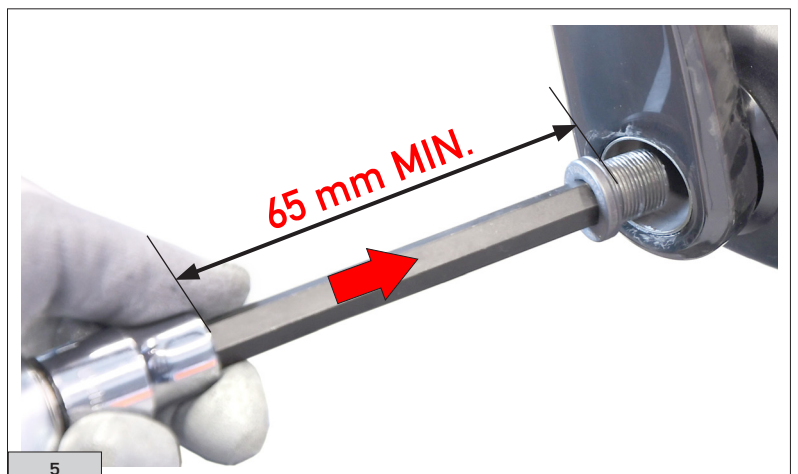
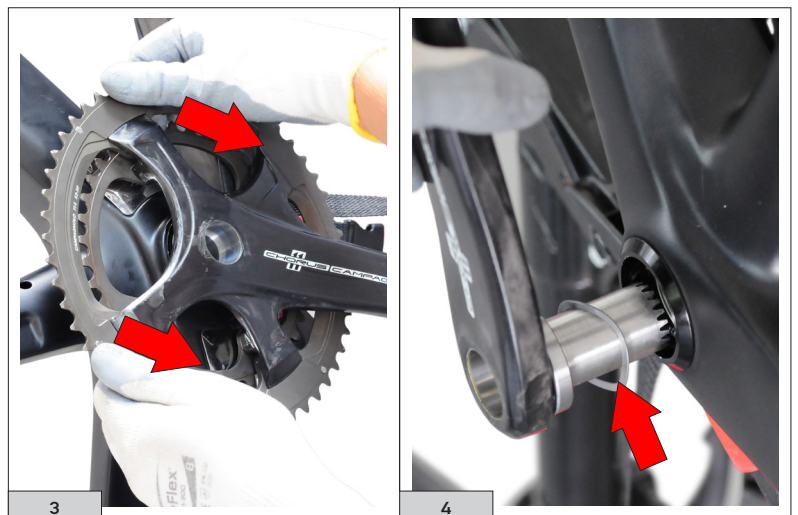
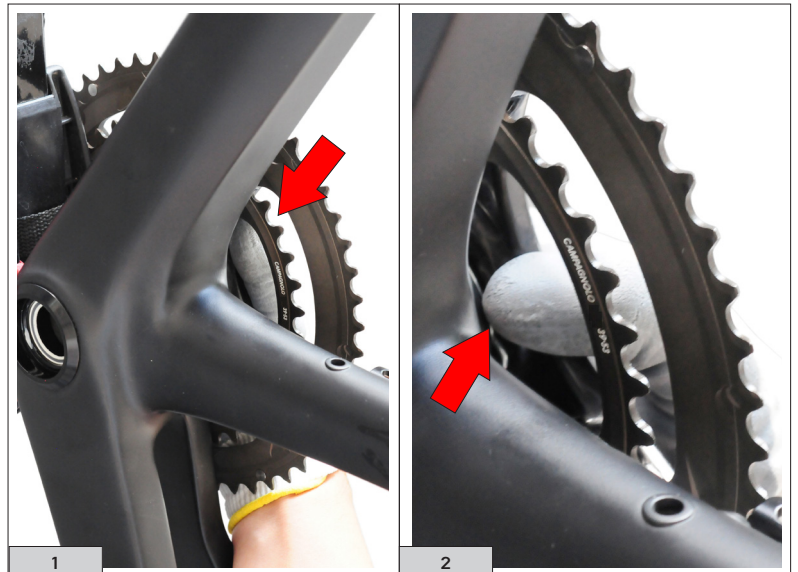
- Insert the wave washer (Fig.4) in the space for the left bottom bracket cup bearing.

- Insert the left hand crank in the bottom bracket shell.

- Using the Campagnolo® UT-BB110 tool or a suitable 10 mm hexagonal insert with a length of at least 65 mm, engage the fastening screw (Fig. 5) in the semiaxle of the right-hand hand crank until it goes through the hole at the inner end of the semiaxle itself. Then engage the thread of the semiaxle of the left-hand hand crank.

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- Using the Campagnolo® UT-BB110 tool or a suitable 10 mm hexagonal insert with a length of at least 65 mm, engage the fastening screw (Fig. 5) in the semiaxle of the left-hand hand crank until it goes through the hole at the inner end of the semiaxle itself. Then engage the thread of the semiaxle of the right-hand hand crank.



WARNING!

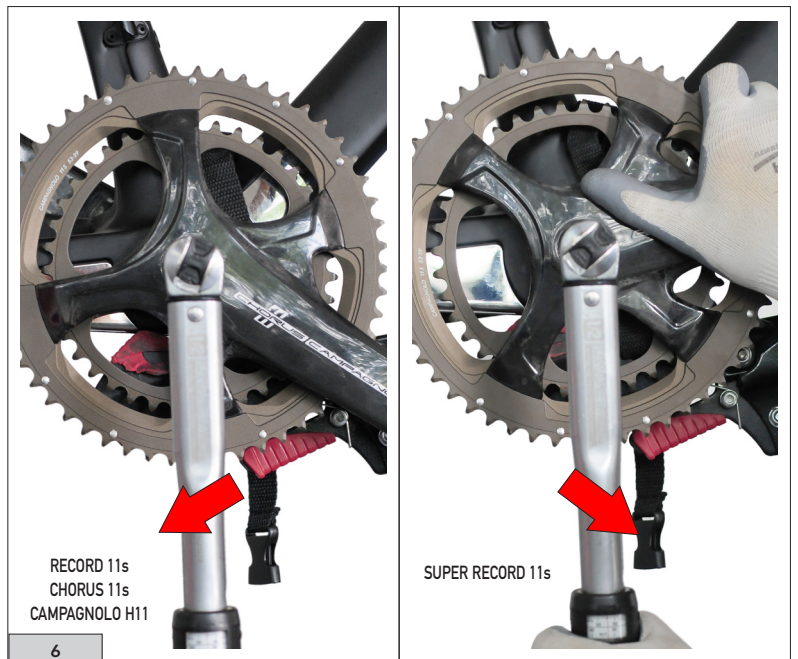
Use the special screw (code FC-SR007 (for SR crankset) - FC-RE007 (for the other cranksets)). The use of a different screw could be the cause of malfunction or breakage, accidents, physical injury or even death.

- Make sure that the hand cranks are correctly aligned.



- Hold with one hand the left-hand hand crank in the correct position, tighten manually the fastening screw (fig. 6) until the semiaxles engage, then apply a torque wrench (to the 10mm hexagonal insert) and tighten to a 42 Nm ÷ 46 Nm torque (372 in.lbs ÷ 531 in.lbs) (fig. 6).

WARNING: the titanium central screw FC-SR007 mounted exclusively on Ultra-Torque Super Record crankset, with titanium semiaxles, has a left-hand thread (to tighten, turn anti-clockwise, to loosen, turn clockwise). Observe the tightening direction that the arrow on the head of the central screw shows (Fig. 6).



- Turn manually the screw until the two hand cranks, positioned in line, can no longer turn between them. If the increased tooth is correctly positioned in the greater slot on the opposite semiaxle, turning a hand crank with respect to the other, the impact of the tooth can be clearly noticed. Only at this point, apply a torque wrench (to the 10mm hexagonal insert) and tighten to a 42 Nm ÷ 60 Nm torque (372 in.lbs ÷ 531 in.lbs) (fig. 7).



⚠ DANGER!
 Never use fixed Allen wrenches in place (Fig. 8) of a torque wrench because, in addition to not being able to set the correct tightening torque, they are often shorter than 65 mm, which may result in partial engagement on the screw head with the possibility of damaging the screw and generating cracks.
 Screw breakage during use may lead to malfunction or breakage, accidents, physical injuries or death.



5 – MAINTENANCE

- Maintenance intervals are strictly approximate and may vary significantly in relation to the intensity and conditions of use (for example: competitions, rain, winter roads with salt, weight of the athlete, etc.). Schedule the appropriate maintenance with your mechanic.
- Periodically check that the central screw and the chainring screws are tightened with the correct torque values:
 - central screw: **42 Nm - 60 Nm. (372 in.lbs - 531 in.lbs)**
 - chainring retaining screws: **8 Nm (71 in.lbs)**

WARNING!

Remember, **EACH TIME** you change the chainrings, to also replace the chainring fixing screws.

- Contact a Campagnolo Service Centre to replace the bearings. This delicate operation requires an extractor to remove them (and a great deal of attention to prevent damaging the teeth of the central joint) and the tool (Cyclus Tools "720263") to press fit the new bearings.
- **SUPER RECORD 11s crankset:** Lubricate the hub bearings and the ball bearings with specific grease for bearing (approximately every 4,000 km). The bearings of the Campagnolo® Super Record 12s bottom brackets are CULT™ (with ceramic ball bearings and stainless steel races).
- **RECORD 11s / CHORUS 11s / CAMPAGNOLO H11 / POTENZA 11™ / CENTAUR 11s crankset:** Clean and lubricate the bearings and semi axles and lubricate the bearing housings in the bottom bracket cups with specific synthetic grease for bearings (approximately every 4000 km).

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.

- Dirt seriously damages the bicycle and its components. Wash, clean and dry your bicycle carefully after use.

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

- Never wash your bicycle using pressurised water. Pressurised water - even from a normal garden hose - may infiltrate through the seals and into your Campagnolo®, components, causing irreparable damage to them. Wash your bicycle and the Campagnolo® components by delicately cleaning with soap and water.
- Clean the crankset and the bottom bracket cups with specific products for the bicycle. **Never use non-neutral solvents or detergents.**

WARNING!

Saline conditions (such as roads in winter and in coastal areas) may cause galvanic corrosion in the majority of the exposed components of the bicycle. To prevent damage, malfunction and the consequent risk of accident, rinse, clean, dry and re-lubricate all components subject to corrosion.

- Do not expose the products to high temperature, do not leave them closed in cars parked under the sun, do not keep them near radiators or other heat sources, do not leave carbon or plastic products in direct sunlight.

6 – PERIODIC MAINTENANCE TABLE

Maintenance intervals are strictly approximate and may vary significantly in relation to the intensity and conditions of use (for example: competitions, rain, winter roads with salt, weight of the athlete, etc.).

Schedule the appropriate maintenance with your customer.

PROCEDURE	MILEAGE IN KM (MAX)	TIME (MAX)	CONTROL METHOD
Check screws are tightened to the correct torque	2000	2 months	Torque wrench
Check chainring wear	4000		
Check the smoothness and replace the bearings if necessary, grease the bearing housing, grease the semiaxle ends	4000	6 months	