

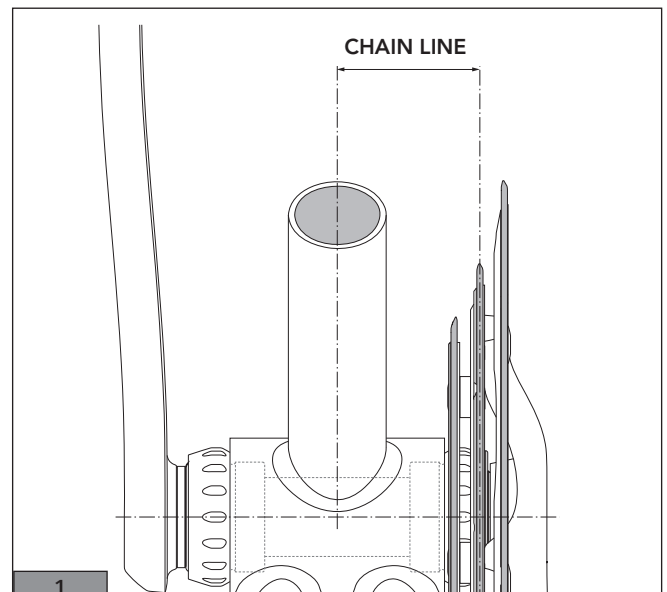
1 - TECHNICAL SPECIFICATIONS

CRANKSET 10s	BOLT CIRCLE DIAMETER	CHAIN LINE	MINIMUM CHAINSTAY LENGHT	AXLE THREADS
52/39/30	135 mm	45,2 mm	405 mm	9/16x20 TPI
50/39/30				

CRANKSET 11s	BOLT CIRCLE DIAMETER	CHAIN LINE	MINIMUM CHAINSTAY LENGHT	AXLE THREADS
52/39/30	135 mm	45,6 mm	405 mm	9/16x20 TPI

1.1 - CHAIN LINE SIZE

- Chain line for triple crankset (Fig. 1)



2 - COMPATIBILITY

CRANKSET	CHAIN	CONTROL LEVERS	REAR DERAILLEUR	FRONT DERAILLEUR
TRIPLE 10S	10s Ultra-Narrow	Ergopower Power-Shift 10s (for triple)	10s (for triple)	10s (for triple)
TRIPLE 11S	11s	Ergopower Power-Shift 11s (for triple)	11s ((for triple)	11s (for triple)

CRANKSET	AXLE	CENTRAL BOLT
TRIPLE 10s	STEEL	STEEL
		Screw in a clockwise direction
TRIPLE 11s	STEEL	STEEL
		Screw in a clockwise direction

2.1 - PEDAL AXLE COMPATIBILITY

⚠ WARNING!

Do not insert washers between the pedal axle and the crank as they would generate abnormal stresses in the interface area. These stresses could lead to premature failure, resulting in an accident, personal injury or death.

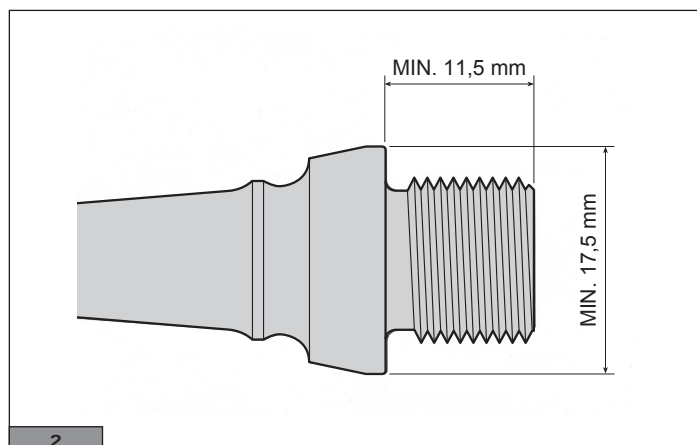
⚠ WARNING!

The contact face of the pedal axle must correspond with the data of Fig. 2.

The above characteristics are necessary to minimize abnormal stresses in the cranks. Such stresses could lead to premature failure, resulting in accidents, personal injury or death

NOTE

Q-factor: 153,4 mm (nominal value).

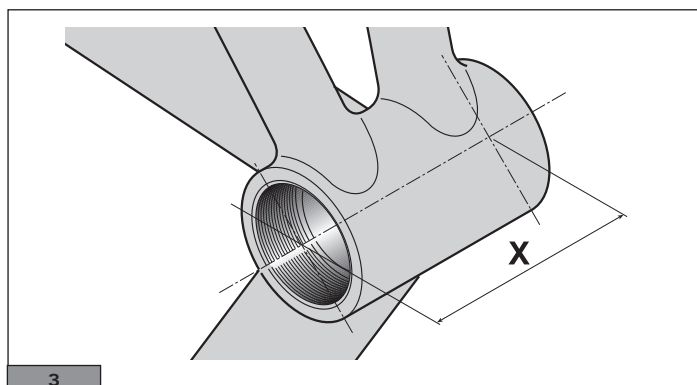


3 - INTERFACE WITH THE FRAME

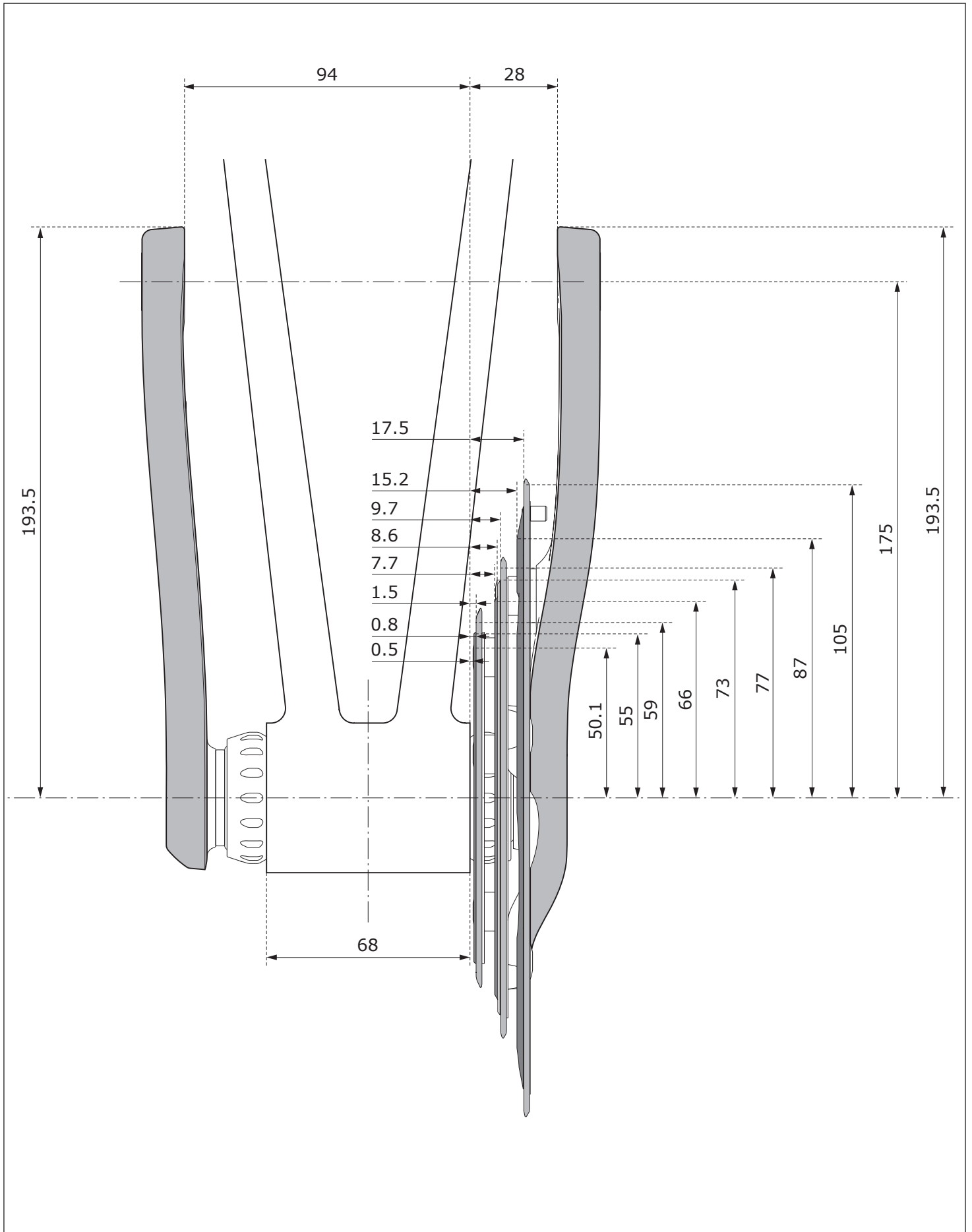
3.1 - COMPATIBILITY WITH BOTTOM BRACKET SHELLS

- The Campagnolo® Power Torque™ System crankset is compatible with shells having the following widths:

TYPE	X (Fig. 3)
Italian thread	69.2 mm ÷ 70.8 mm
English thread	67.2 mm ÷ 68.8 mm



3.2 - DIMENSIONS FOR TRIPLE CRANKSET



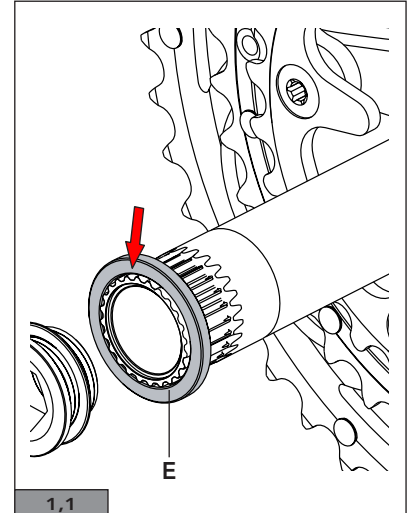
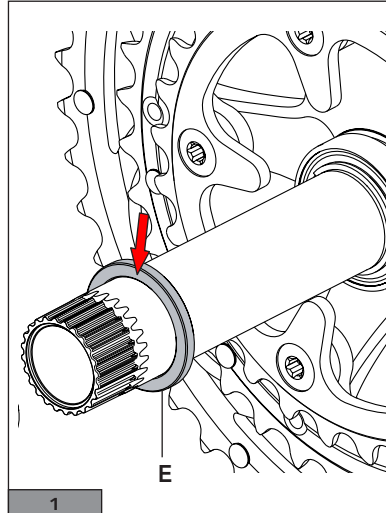
4 - ASSEMBLY

When a bike frame is manufactured, the bottom bracket shell is often deformed. In addition, paint residue is often left on the edge of the shell and on its threads. Therefore, in order to prevent the bottom bracket (bb) cups from being twisted off their ideal working axis, it is necessary to face and tap the bb shell (unless this operation has been performed by the frame manufacturer).

4.1 - FRAME PREPARATION AND INSTALLING THE CRANKSET

To install the triple crankset correctly, use the 3 mm shim on the left hand side of the crankset spindle to ensure that the pedals are symmetrically aligned with the bottom bracket.

In the crankset box, the 3 mm shim is fitted on the right hand crank: remove the shim and keep in a safe place (E - Fig.1 / 1.1).

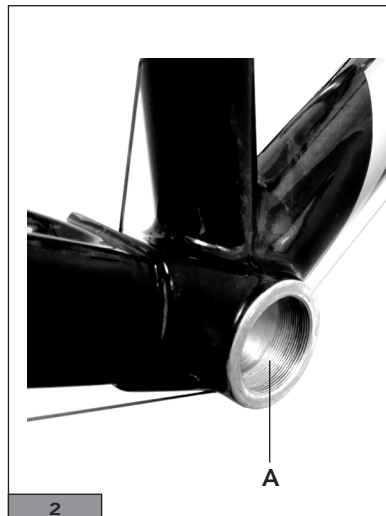


- Make sure that the threads (A - Fig. 2) of the bb shell are compatible with the threads of the bb cups:

- **Italian thread:** 36x24 tpi
- **English thread:** 1.370x24 tpi

- True the thread (A - fig.2) of the cassette using a suitable tool.
- Face the bottom bracket shell (B - Fig. 3) respecting the measures X (Fig. 3 - chapter "INTERFACE WITH THE FRAME"), using a suitable tool.

If there is no such hole, do not simply drill one. You must contact the frame manufacturer for further information and clarification in this regard.



- Clean and degrease the threads of the bb shell (Fig. 4).

CAUTION

Use **exclusively** the cups for Power Torque system crankset.

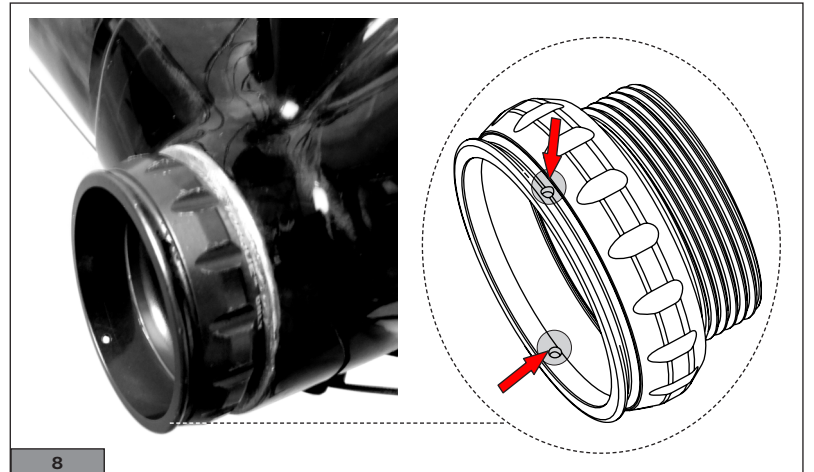
- Take the bb right cup, screw it in fully (Fig. 5) and tighten at **35 Nm (310 in.lbs)** with the Campagnolo UT-BB130 tool and the torque wrench (Fig. 6).
- Repeat the previous step with the left cup.



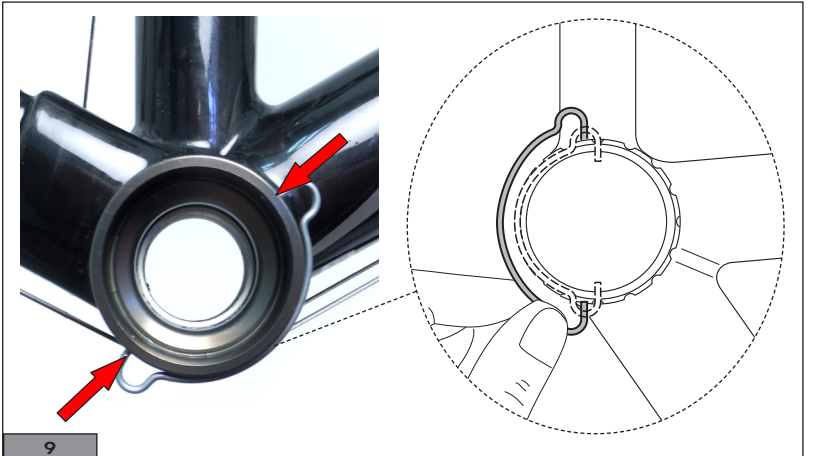
- Apply a thin layer of grease on the internal surface of the bearing installed in the left bottom bracket cup (Fig.7).



- Identify the two small holes on the right cover (fig. 8).

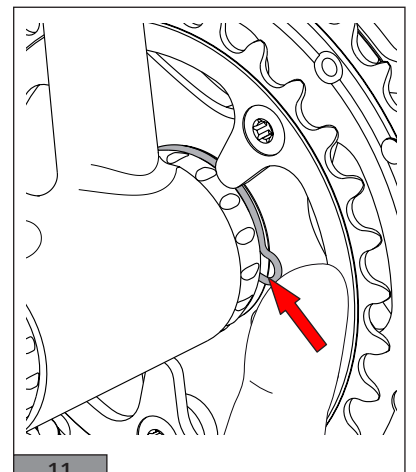
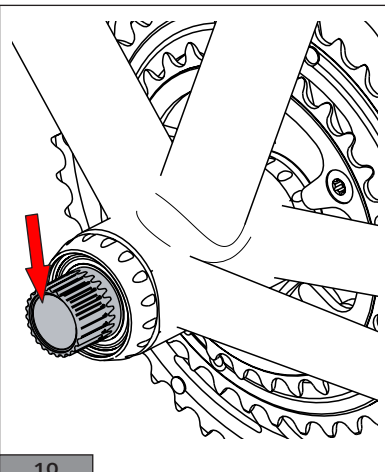


- Position the holding clip with its two ends near the holes (fig. 9). Do not insert the clip into the holes.

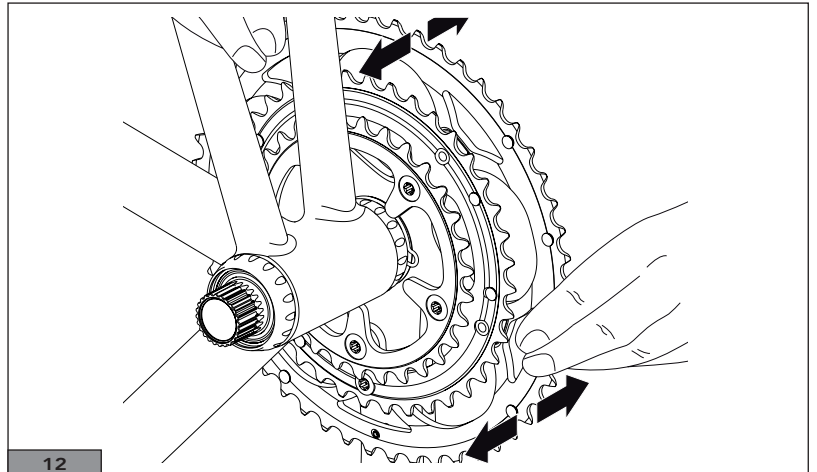


- Insert the right crank fully into the bottom bracket (fig. 10) letting the pivot protrude from the left cover.

- Press the clip so that the two ends are pushed into the holes (fig. 11).



- Move the right crank sideways as if to take it out of the bottom bracket and check the clip is positioned correctly and holds the crank (fig. 12).

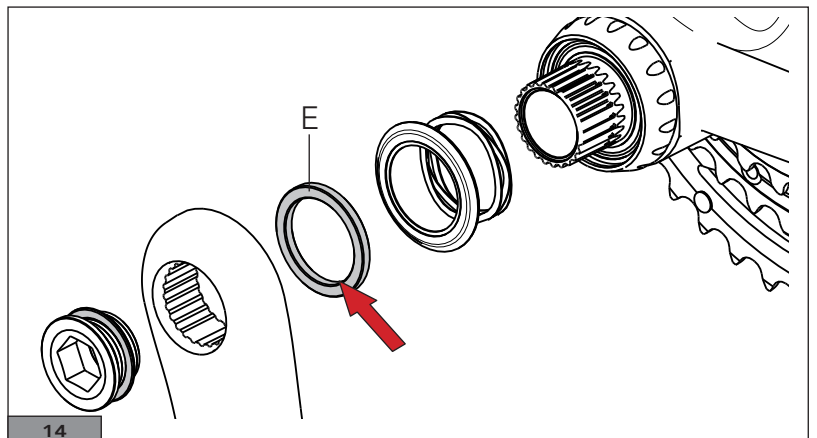


⚠ WARNING!

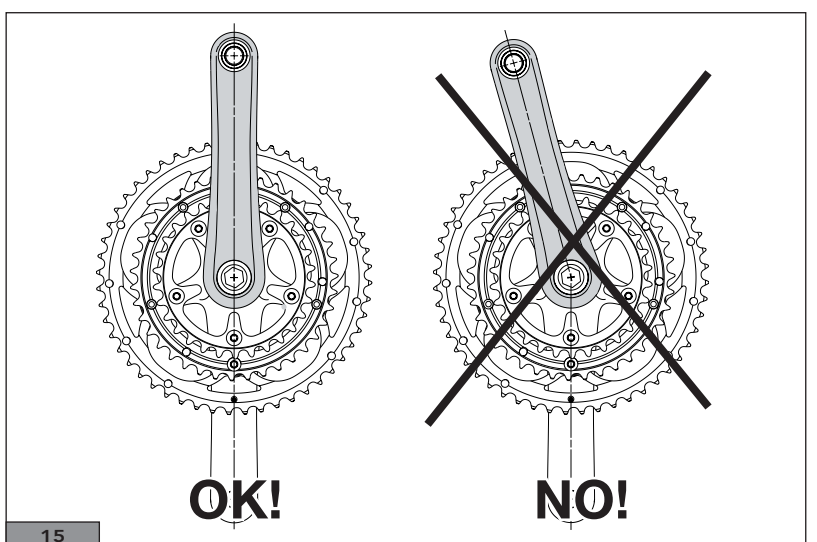
Before **ANY** installation, grease the splines of the spindle, splines of the crank and the threads of the crank bolt with the appropriate synthetic grease (fig.13). An incorrect assembly might lead to the sudden break of the component as well as accidents, injuries and even death.



- Insert the spring and gasket into the spindle (fig. 14).
- **FIT THE 3 mm SPACER (E – FIG. 14) BETWEEN THE SEAL AND THE LEFT CRANK.**
- Insert the left crank into the spindle (fig. 14).



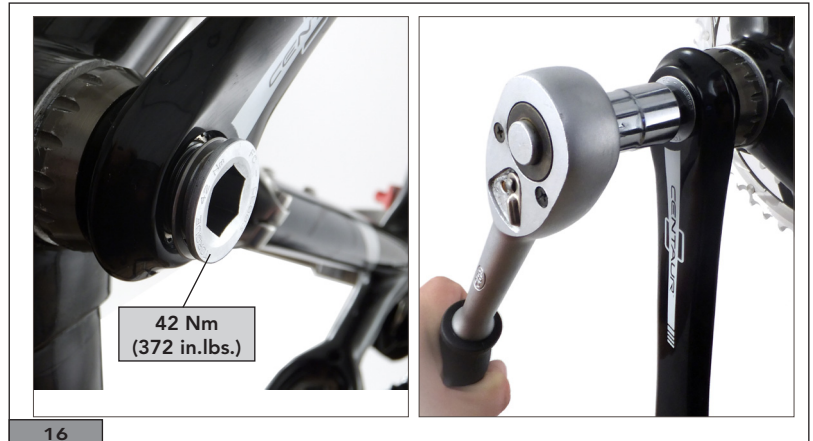
- Check the cranks are correctly aligned (fig. 15).



- Take the crank bolt and check the washer is present. Tighten the screw at a torque of **42 Nm (372 in.lbs)** (Fig. 16).

⚠ WARNING!

If it is necessary to replace the chainrings, contact a Campagnolo® Service Center since the flatness must be carefully checked using special equipment. Final assembly must be carefully performed in order to avoid an accident, personal injury or death.



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5 - MAINTENANCE

- Check regularly that the crank's locking screw and the gears' screws are tightened to the correct torque:
 - **Crank locking screw: 42 Nm (372 in.lbs)**
 - **chainring fixing bolt: 8 Nm (71 in.lbs)**
- To replace the bearings, contact a Campagnolo Service Center. This delicate operation requires a (type Beta / Usag) extractor to remove them and the type Cyclus tools "720263" to drive the new bearings in.
- Never modify the crankset in any way. Tampering with the components may cause sudden failure and accidents.
- Periodically inspect all components of your bicycle to insure that they are in optimum condition and safe for use.
- Only clean the crankset and the cups using specific products for cleaning bikes. Never use solvents and non-neutral detergents.
- Clean and re-grease the ball-bearings and pin and lubricate the cup bearing seats with specific grease CAMPAGNOLO PROFESSIONAL LUBRICATING GREASE (cod. LB-100) for bearings (approximately every 4,000/6,000 km).
- **Maintenance intervals are purely indicative and may be significantly different in relation to conditions of use and the intensity of your activity (for example: racing, rain, salted Winter roads, weight of the rider etc.). Check with your mechanic to select a schedule that is best for you.**
- Do not expose the carbon crankset to high temperatures. Do not store bike parts in vehicles parked in the sun, and do not store near radiators or other heat sources. Do not store carbon fiber products in direct sunlight.
- 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.